

Joseph Needham's *Science and Civilization in China* is one of the landmarks of twentieth century British scholarship. In "Bookends", Jon Turney discusses with FRANCESCA BRAY her new volume on Chinese agriculture and the daunting task of taking up where Needham left off (page 12)

How much do POLYS really cost? Karen Gold breaks down the latest set of figures (page 10)



The other side of 1984: on his one hundred and fiftieth anniversary, Anne Cranny-Francis looks at the life and work of WILLIAM MORRIS and assesses his contemporary significance (page 13)

History men or exploited drudges? David Lehmann looks at the pressures on academics in the field of DEVELOPMENT STUDIES (page 14)

Following his arrest and mock execution, FYODOR DOSTOEVSKY lost contact for a time with the Russian literary and cultural scene. Richard Freeborn reviews Joseph Frank's study of the novelist's years of exile and examines the profound change in thought and sensibility they brought about (page 15)

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English books



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The other Britain

The world of higher education - its institutions, its teachers, its students - is firmly fixed in the comfortable Britain contrasted by the Bishop of Liverpool, Dr David Sheppard in last week's Dimbleby lecture with the other Britain of poverty and unemployment. Higher education is about success, achievement, getting on (and up); the inhabitants of David Sheppard's Britain know only failure, frustration, staying (or being left) behind.

Universities, polytechnics and colleges are even further removed, infinitely remote some might say, from the lives and experiences of what Professor Ralf Dahrendorf, the director of the London School of Economics, called the underclass in his Barnet lecture at Toynbee Hall in London's east end last month. The alarming fact that five, ten or even 15 per cent of our fellow citizens have been decisively disenfranchised, their lives disfigured, has had the most limited impact on higher education.

This gathering social crisis is observed only as an external ideological phenomenon in which (some) individuals within universities and polytechnics may be intellectually or politically engaged but from which their institutions stand aloof or as a growing security problem because by an irony of history many of them have been set down in the very streets and districts in which David Sheppard's other Britain, and its most decisively disadvantaged component Ralf Dahrendorf's underclass, struggle to live their lives.

What is both alarming and depressing is that the gap between the world of higher education and the lives of the poorest members of our society seems to have grown wider rather than narrower despite the great expansion of the last generation. In the 1980s higher education seems to have a much slighter sense of social responsibility than it did 20 years ago, and during the same period the success and growing insensitivity of the majority have cast the comparative failure of the minority into deeper and deeper shadow.

For a while it hardly seemed to matter. After all higher education could not escape from its historical role as an instrument of modernization. So long as in the grim calculus of utilitarianism those who benefited from modernization visibly and substantially outnumbered those who suffered any expression of regret that threatened to become an effective measure could justly be labelled reactionary. Nor could higher education escape entirely from the traditional appeal and meaning it possessed for individuals, as an avenue of escape from the narrow limits of a perhaps philistine community for the best and brightest however arbitrarily and occasionally unfairly defined. Higher education has always been for those

who, to adopt the political language of the 1980s, get on their bikes. Again so long as those who pedalled hopefully far outnumbered those who stayed behind it was difficult to regard objections as anything but sentimental.

Today it has become difficult to be so callously sure. The number and character of the excluded have changed in important ways that have not received proper attention. It is no longer possible to regard them as the social debris of beneficial modernization, an irreducibly residual minority to be cared for by the benevolent process of social welfare. The recurrence of mass unemployment has changed all the calculations. Not only has the raw number of those threatened by disenfranchising poverty increased substantially in the last four years, but the persistence of unemployment and its concentration in particular regions (like Merseyside) and in particular groups (like the young especially if they also happen to be black) have changed what could once be hopelessly dismissed as a temporary setback for isolated individuals into a deep-rooted culture of disability that grips whole communities. And while the scale of this problem has increased and its character intensified, our communal generosity to contain it by the conventional instruments of social welfare has sharply declined.

On the other side the capacity of higher education to offer a creative response to this new social crisis, like the similar capacities of all the established institutions of comfortable Britain, has been limited. Those whose sense of social responsibility has not diminished tend to see the issues that arise from higher education's responsibility in out-of-date terms. They use the language and categories of post-Victorian progress; they emphasize the need to increase working class participation in terms that were already familiar in the 1940s.

Yet it is more difficult today to believe that the simple expansion of higher education combined with the removal of a few of the more obvious blemishes will lead to an increase in working class participation. Of course the pool of talent described by Robbins and many before and since still exists almost untouched. But the experiences of the late 1970s and 1980s, described by the Bishop of Liverpool in his Dimbleby lecture, may mean that this pool is now covered by a layer of ice which has made it even more difficult to tap.

Indeed the difficulty may be greater than even that. In his Barnet lecture Professor Dahrendorf made a clear distinction between the repressed class of yesterday and the underclass of today. The former was able to assert its rights in active struggle, in Britain by

breaking windows and heads in most of Europe by organized revolution. It was full of energy and nerve, quite able to get on its bike. The behaviour of Arthur Scargill and the miners today is entirely typical of this aggressive assertion.

An underclass is very different. It is not the carrier of the progressive ideas that liberate a nation; it is not struggling for enfranchisement in ways that enlarge the very term. Rather it is characterized by a lack of defining ideas and an inability to assert its claims with success, or at all. So its culture is a brew of racism and other inconclusive extremisms, of unfocused personal violence, of disenfranchising dependence, and of the frozen violence of alienation so clearly described by David Sheppard.

The silent majority in higher education has incoherently grasped this change in the character of the excluded. It feels uncomfortable and even a little annoyed in the presence of that determined minority that still talks the language of increasing working class participation - unless it can be confined to the most harmless ritual. Instead it stakes its claims (and its projections of future student numbers) to the rising tide of participation by middle class girls, to the very occupational drift that leaves the poor and the unemployed further and further behind, to the growing involvement in continuing education to intensify the skills of the already highly skilled.

So the gap grows wider. A higher education system that is going further and further down the high tech road, that is sceptical of the moral need and the practical effectiveness of increasing working class participation, that is anxious to downgrade those intellectual skills developed by the social sciences that would help at least to analyse Britain's new social crisis, has abandoned most attempts to reach out to ordinary people as patronizing relics of paternalism on the one hand; on the other a growing army of the excluded many without the obvious internal resources possessed by their parents and grandparents.

Higher education, and all comfortable Britain, face a moral challenge. Do universities and polytechnics regard this new social crisis as a phenomenon to be combated by better security sweetened by a little of the PR of community work? Or do they attempt to reinterpret for the 1980s the moral urgency felt by their Victorian ancestors a century ago. Toynbee Hall where Professor Dahrendorf gave his lecture in March is a monument to that moral urgency. Where and what will be the monuments to today's moral urgency in the face of as deep a crisis that can be celebrated a century from now? Or must the excluded put up for ever with, in Gandhi's phrase, "the hardheartedness of the educated"?

Setting polytechnics free

Next Monday is the deadline for comments on the Department of Education and Science's consultation paper on the "best ways" to allow polytechnics and other colleges greater financial freedom from their maintaining local authorities. If it seems that this consultation has caused almost no stir it is because that is what the DES has wanted from the start.

All along the nature of this initiative by the DES has been signalled clearly: it was to be a sharply circumscribed exercise, aimed to encourage the polytechnics and colleges to behave more entrepreneurially by removing the most obvious disincentives rather than to upset the carefully arranged National Advisory Body apple cart by asking too penetrating questions about the underlying financial and administrative relationship between institutions and authority. So the timetable for consultation was abbreviated and although granting polytechnics and colleges corporate status independent from their local authorities was included as one option the language of the DES paper left little doubt that it would favour a much more limited solution, enabling legislation to allow

polytechnics and colleges to "trade" and keep any profit by amending the local government Acts.

The DES is clearly determined to live for the moment within the unwritten constraints established by the NAB compromise. Both ministers and civil servants would like local authorities to run their polytechnics on a longer and looser rein; but they are not prepared to upset their NAB partners by insisting that they do so. So the kind of root-and-branch solution favoured by Cooper and Lybrand in their recent report on King's Cross Polytechnic is not regarded with favour. The DES got its fingers badly burnt in 1981 when it hatched its secret plan to live off polytechnics from local government. It has become a born-again convert to the benefits of national co-operation in advanced further education.

The DES is right in its assumption that it is not the time to raise in a fundamental form the tricky relationship between institutions and their authorities. But it is probably wrong in its assumed belief that the changes in the rules will automatically lead to greater

freedom for polytechnics. Enabling legislation does simply that - enable. It cannot lead to a change of heart where the tradition has been one of cautious restriction. Nor have the existing rules proved much of an obstacle when local authorities have connived at the entrepreneurial conduct of the polytechnics. On the other hand corporate status does not necessarily lead to greater freedom as the experience of the inner London polytechnics has shown.

Of course, if corporate status was the rule rather than an anomalous exception it might have a different and more substantial impact. But the main change can only come from a change of attitude not a change in the rules. Local authorities must learn to trust their polytechnics if they want to hang on to them. Their officers must learn to respect their opposite numbers in the administration of polytechnics as equals not treat them as subordinates to be instructed. In the best cases this happens already. But it must become standard practice. This shift in attitude, not root-and-branch schemes from management consultants, will finally set the polytechnics free.



(Broadcasts by OU face cut - 11th April 13)

Professor Millibaum - could we just get that once again. You were absolutely perfect but we had some problems with lighting. Right. Quiet everyone. No Rolling. And - cue.

So what does it mean to say that exchangeable values of commodities are social functions? Well, firstly... Cut. Cut. Yes, very nice, professor, particularly liked that nice college "well", but perhaps a little less analysis. Especially on the word "social".

But I have to emphasize that because I'm just about to contrast it with "natural". Social functions and natural functions, and then move over to the photograph of the worker.

Quite, quite. I think we're all a little extra stress here and there. It's just that viewers in the early hours of the morning might find the emphasis a little too pronounced if you actually achieve it by beating your fist down against the microphone on your desk. Only a small technical point. Alright. Well, if you...

Excellent. So back to "social functions".

New social functions... Wait for the cue.

Sorry.

Sound. Rolling. And - cue.

Now social functions have nothing to do with natural qualities. Oh no, no, no!

Good. On we go, professor. Not too colloquial. And don't stand still. Remember the script. Over to the photograph. That's it. Just walk naturally. A little faster. Watch the table. No, don't worry - it'll edit. And - cue.

In fact - according to one major theory who can't be named without this course being accused of bias - the common substance of all commodities is LABOUR.

Cut. The gesture was a teeny bit over the top, if I may say so, professor. By all means emphasize the significance of labour particularly when we have that nice picture of it, but it's slightly difficult to follow you with the camera we've got if you raise both arms so high above your head. Beautiful. On to the final take. We're going to "Popular Culture" and "The Experience of Women" to fit in with lunch. Sound. Running. And - cue.

So at last we may have a conclusion.

Good. Good. Move forward to the camera.

A definite conclusion.

Slowly.

A commodity has a value...

Don't bang the microphone. Keep walking.

Because it is...

That's right. Slight pause. And - cue.

A crystallization of social labour.

Now turn to your left. That's it. Now and show. Pick up the packet. Hold it up. Higher! Smile. Broaden! And - cue.

And always remember...

Slight knowing nod of the head. Perfect. My word, who ever said the OU was not adaptable. And - cue.

Sudo Automatic Washer Clean.

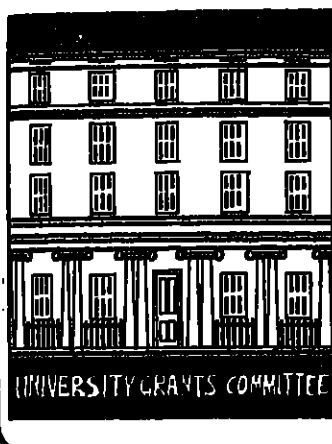
And... cut.

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Universities reply to the Great Debate, 10-11



Scots strike threat over split offer

by Olga Wojtas
Scottish Correspondent

Scottish lecturers are today warning management in their pay talks that they will take industrial action if a differential pay offer is made. As the last meeting of the Scottish Joint Negotiating Committee, management informally offered 4½ per cent to staff in local authority further education colleges but only 3 per cent to staff in central institutions and colleges of education.

Mr George Livingstone, chairman of the Association of Lecturers in Colleges of Education in Scotland has attacked the differential offer as "a calculated insult" and both ALCES and the Association of Lecturers in Scottish Central Institutions are poised to impose sanctions, if the offer is not increased.

The informal offer was dependent on the central colleges accepting 3 per cent, but a ballot of further education lecturers in the Educational Institute of Scotland has revealed 90 per cent in favour of accepting 4½ per cent.

Meanwhile in England and Wales the way the recent round of lecturers' pay negotiations was conducted has caused bitterness among the organizations represented on the Burnham further education panel.

Other groups say the provisional settlement of 4 per cent plus £330 was forced through by the National Association of Teachers in Further and Higher Education team despite protests from the other unions and from within its own ranks.

The other unions, which had been prepared to accept the offer of 4.5 per cent for everybody, are considering options, ranging from no action with the settlement to asking for a review of present negotiating arrangements.

Dr Tony Pointon of the Association of Polytechnic Teachers, said the teachers panel had been out-manoeuvred by management and that the continued on page 3

Government threatens tenure law

by John O'Leary

Mr Peter Brooke, under secretary for higher education, has threatened to introduce legislation on tenure if no further progress is made by the universities towards its reform.

He told *The Times* in an interview last week he had come to the conclusion that it was unreasonable to expect the universities to make such a fundamental change themselves. The Government would not intervene until every other avenue had been explored but, if all else failed, legislation would have to be considered.

The natural time for such a decision would come next year when ministers make final judgments on higher education policy in the wake of the current "great debate", Mr Brooke said. Civil servants have already done preliminary work on possible approaches.

"It might appear that this area has gone quiet in the last year, but I can assure you that the Government has not lost sight of the problem," said Mr Brooke. He added that he accepted the need for academic freedom to be protected but could not let tenure be used as a defence against incompetence or insolvency.

The Employment Acts offered sufficient protection in these cases.

The only university to have taken action to the point of inserting a redundancy clause into the contracts of all new staff is Reading. It is now estimated that lecturers in approximately half the universities have tenure.

The vice chancellors' view is that retroactive legislation would not get through the House of Commons and certainly not the Lords. If it only referred to new staff, it would have no significant effect for 10 to 20 years, as universities would not want to dismiss their "new blood" staff.

Legislation would also undermine attempts to introduce reforms such as more short-term appointments, longer probation periods, and tenure given at a much later stage.

Ms Diana Warwick, general secretary of the Association of University Teachers, said: "I find the minister's conclusion very depressing (though I am pleased that he has said it). Locally, that is the end of the road for the moment, but the end of the road will not be taken at this stage. The AUT will continue to argue that tenure is needed to protect academic freedom."

Mr Brooke attaches increasing importance to the

issue because he expects further rationalization to be necessary on both sides of the binary line by the end of the decade. Despite a succession of predictions to the contrary by the Royal Statistical Society and organizations within higher education, he still foresees a decline in student numbers during the 1990s.

While accepting criticisms of the methodology used by the Department of Education and Science in producing projections last year, he described the statisticians' conclusion that demand would rise throughout the remainder of the century as "a quantum leap in logic".

He said he expected lower numbers to necessitate a rationalization involving closures of departments and possibly whole institutions. If so, ministers would take an active role in choosing the victims.

Mr Brooke hopes that the Government will be ready to publish a Green Paper on higher education policy, including definitive projections of the size of the system for the remainder of the century, by the end of the year or early in 1985. A further round of consultation would follow, leading to final decisions within 18 months.

Full interview, page 13



Mr Harrington is protected by police (above) after a confrontation with students

Students defy judge over NF member

Violence flared at the Polytechnic of North London this week as students defied a High Court order and prevented student National Front member Patrick Harrington from attending his first lecture of the term.

The interim injunction granted by Judge Popperwell instructed named student Stephen Phillips, on behalf of himself and others who had previously taken part in pickets organized by the Socialist Worker Student Society, to refrain from molesting Mr Harrington or from denying him access to the polytechnic.

Mr Harrington handed a copy of the injunction to picketing students when he arrived at the college's Kentish Town site where he is enrolled on a philosophy course. They tore it up in his face and refused to allow him into the building. Violence broke out as a student tried to stop a colleague of Mr Harrington's from photographing the pickets.

There was further violence following the arrival of a new batch of police who arrested four students. Following appeals from lecturers who had taken part in the demonstration the students were released without charges being pressed.

Patrick Harrington described the behaviour of the protestors as "much as expected" and added that "the law is my support." He now intends to seek an emergency hearing of the court in order to obtain an enforcement order.

Financially embarrassed CNAA cuts registration fees

by Karen Gold

The Council for National Academic Awards is to cut its student registration fee by 8 per cent after discovering it has made a record "profit" for the second year running.

In surplus of income over expenditure for the academic year 1982/83 was around £2.3m, compared with a £2m surplus in the previous year. Virtually all that income comes from the fees paid by students on registering at

polytechnics and colleges for a CNAA-validated course.

The fee of £75 was due to be frozen until the end of the next academic year, 1984/85 at least. But with such an embarrassingly healthy cash flow, the council has decided to cut the fee to £69 for students registering from this autumn.

Even that will only just stem the flow of funds. The major cause of the increase is the annual large jumps in

the number of public sector students in the years following the universities' decision to cut their places, and the consequent increase in the number of fees paid.

The council has also benefited from overestimating the rate of inflation and the size of pay increases, and from a strong investment portfolio. Its reserves have also reached record levels, going from more than £5m last year to well over £7m this year.

The size of the reserves led to a tense discussion at the last council meeting about whether CNAA activities - which have been relatively static in recent years - should be expanded with the funds available. Members of the council around that the money should be spent to the benefit of public sector higher education, through research and capital projects.

The matter is to be raised at the council's next full meeting in July.

Scientists called to Downing St

by Paul Flather

Mrs Margaret Thatcher, the Prime Minister, called a private meeting of top science policy advisers and officials at Downing Street yesterday to discuss, among other matters, the future funding of science research and reforms of how science is organized.

Details have been kept highly secret, with participants even trying to deny the existence of the meeting. But it is understood the Prime Minister is keen to hear exactly what major concerns and requests scientists have before next year's science budget is fixed in the annual expenditure round.

At the meeting was Professor John Kingman, chairman of the Science and Engineering Research Council, also chairman of the Heads of Research Councils committee, Sir David Phillips, chairman of the Advisory Board for the Research Councils, Dr Robin Nicholson, chief scientist to the Cabinet Office, Mr Peter Brooke, under secretary for higher education, and Mr David Hancock, permanent secretary at the Department of Education and Science.

A key issue was to try and unscramble the crossed wires that seem to have followed last September's highly public "science seminar", hosted at Lancaster House by the Prime Minister, which left many scientists believing they had now won Mrs Thatcher's personal backing for more research fundings.

The Prime Minister never meant to imply more money would be there for the taking. She does however accept that the total £3.8 billion Whitehall research and development budget may not be being spent in the best way.

She was expected to reaffirm her view that if the case for increasing the science vote was well made, then the total research and development budget could well be altered. She was also expected to tell the group she is keen to pursue reforms in the way science is organized and funded.

Professor Kingman and Sir David were expected to raise the question of how much more money is needed if Britain is to continue its participation in CERN, the European Nuclear Research Centre. Mrs Thatcher is not convinced about the value of Britain's continued involvement.

A new document, *Scientific Opportunities*, for this year's science budget has just been prepared by the ABRC, and Sir David and Professor Kingman, backed by Mr Brooke and Mr Hancock, were expected to talk the Prime Minister through the report.

Letters to the editor

A question of U and non-U

Sir, - Your editorial on "A non-U research policy" (THES, April 20), ignores one element - that of the relationship between introducing new subjects into the curriculum of colleges and the research necessary to teach them effectively.

In my own area of broadcast journalism I can think of research that would not appear in any census you might undertake or encourage: sabbatical study leave that is never listed but produces work of the calibre of Paddy Scannell and Dave Cardiff, in the *Poly of Central London*, mainly published in *Open University* set texts. They teach the BA media studies and I am sure their research has contributed to the calibre of the teaching they are able to produce.

While polytechnics can allocate sabbatical years off from teaching, those in colleges are rarely so fortunate, although Inner London Education Authority did allow one term for me to study the origin of the BBC's radio news department. My doctoral research in journalism education in Britain between 1880 and 1970 attracted no remission from teaching and was done in my own time. This research

was done while teaching full-time at this college, yet - in any proposed census - that research was "undertaken" at City University journalism department, to whom it would most likely be "credited". As yet, though, none of the two university-based journalism departments support any full-time research staff in journalism. Ironically, most of the research of that kind is being undertaken in colleges where such teaching takes place. Such colleges take it as natural that they participate in evening teaching, something that Mr Tamara Elenshitz, of City University, regarded with horror in your April 13 issue, unaware, of course, of such beasts as "evening degrees" which King's College London, used to offer at one time.

Yours,
FRED HUNTER,
Department of Journalism,
London College of Printing.

Sir, - Presumably you will follow your non-U research policy leading article with one titled "A U teaching policy". It is interesting that the activity which seems to cause either side of

the binary line most problems, is the traditional strength of the other: research as the criticism of university teaching reported in *The Times* and recently in the wider media, is a structural rather than an individual problem. It has significance for the public sector and is too fundamental to be lightly brushed aside. It is likely that some, if not all, of the criticism is a direct consequence of undergraduate education being undertaken by "research" institutions, where the valued activity and staff interest and expertise in research and not teaching. Generations of undergraduates have experienced a significance now because an alternative exists.

Neither sector can dismiss a professional approach to higher education as no more than the possession of lecturing skills and the piecemeal and superficial provision of induction and other short courses would not be accepted as a foundation for other professions.

There seems to me to be two important implications for public sector research policy in the criticism of university teaching. The first is that it completely undermines any belief in a

direct link between subject expertise and teaching ability. The second is that no system requiring the effectiveness of two distinct activities, will function properly if only one is valued.

From an institutional point of view, the sensible research policy you are asking for implies, I think, an integrated research and teaching policy. Such a policy must provide a proper basis for research and teaching and allow them to function in their own right and interrelate where necessary. It will have to acknowledge the different qualities, expertise and parallel career opportunities required for staff engaged in either teaching or research and not allow one activity to distort the other. The polytechnics have had large reserves of teaching commitment to draw on while building up their research programmes. Their mix of teaching and research staff should make them internally well placed to establish properly integrated research and teaching policies.

Yours faithfully,
B. E. RICHES,
School of electronic and electrical engineering,
Leicester Polytechnic.

Criticism of CUA report

Sir, - I was very disappointed to see the editor's criticism of the CUA report (THES, April 13). It makes me wonder whether the *Times* prize heaped on the organization in the editorial of April 1983 was not a joke after all. Barely 12 months later he refers to CUA as "retreating from a sharp policy edge and becoming instead a just training workshop".

Perhaps the Editor has mistaken stood not only the purpose of CUA, but also the way in which it achieves its aims. CUA exists to further the development of sound methods of university administration, and its main conference, as well as its numerous training courses it organizes, serve further that aim. A preliminary examination of the participants' comments of the various sessions at a year's conference suggests that a good deal has been offered and learned about administrative techniques, policies, to the benefit of the system as a whole. I make no apology for the learning process conducted through the medium of the annual conference which has never been intended as a forum for political debate but rather a place where ideas for the improvement of administrative standards are engendered and, of course, informal contacts made and continued.

And CUA functions for the remaining 51 weeks of the year outside its annual conference, as the last 12 months have seen. Its study tour to China and the subsequent publication on *University Administration in China* broke new ground. A working group on resource allocation in universities has recently reported and published findings in conjunction with the Society for Research in Higher Education. A further publication, *The Modern Electronic Office* has just become standard text.

Yet CUA cannot justifiably be accused of losing its cutting edge. What not basically a political cause it must be one of the very few organizations not the only one whose evidence to the University Grants Committee is taken into the 1990s has been published welcomed by the chairman of the UGC.

Where there more organizations dedicated to improving standards within higher education, for example, teaching and research, to name but two, the system might not be under attack that it is today.

CUA started and has continued as a proponent of quality in university administration. It is only from a basic quality that political and policy problems and contributions can be made and CUA will not miss such an opportunity when the decision does not stand alone but continues to drive to improve standards on all fronts of university administration.

M. A. HIGGINS, Chairman,
Conference of University Administrators.

Sir, - Frank Close's explanation of the exotic language of physics (THES, April 13) was informative and entertaining. However, he mysteriously did not explain the etymology of the word *atom*, despite the fact that the word is much more basic than most of the terms which he did explain. In the article, this was a surprising omission for the word *atom* (= indivisible) is the most delightful oxymoron that the physicists have ever invented.

Contrary to Close's hope that "nature deepened understanding" would enable physicists to choose more "usable names", this proved misguided. As he has stuck, and such utterly ill-fated expressions as "atom unparticles" and "subatomic particles" (= fragments of the infragable) are now used in the commonplace, but nobody seems to be concerned.

It is 1984, not the right time that the misnamed "atom" be renamed *atom*.
T. S. HARRISS,
Department of geology,
University of Wales, Aberystwyth.

ESRC in radical plan for future

by Paul Flather

A radical new plan to direct future social science research over the next five years around the theme "change in Britain" is being developed inside the Economic and Social Research Council.

The plan would account for £11,000, about one third of all the council's uncommitted funds, in its first year in 1985/86, rising to twice that in each of the two following years. It is the brainchild of Sir Douglas Hague, the ESRC chairman, who believes the council must play its part in assisting the British economic recovery by tackling the most intractable problems being caused by rapid change.

He believes British society has changed greatly in the past 30 years, and is likely to be very different again in 30 years time. The 1950s and 1960s appear to have been the golden age. Now, he believes, it is increasingly difficult to disentangle recent changes from current changes.

The theme would involve setting the context, with analysis of what is wrong with modern Britain, followed by prescriptions of what needs to be done and how in a country where he says traditions and instincts are settled to the point of inertia.

If accepted by the council, the plan would form the basis of the ESRC budget proposal for 1985/86 and submitted to the Advisory Board for the Research Councils for approval. Sir Douglas also plans to pursue the theme at the two-day July council meeting by inviting the six main committee chairmen to give papers linking change and their own research programmes.

While the idea has many intellectual attractions, it could well fuel concern over the increasingly centralist style of the council. It would mark the climax of a gradual shift away from the

"responsive style" of council adopted in 1965, begun with the creation of a research initiatives board in 1975.

In many ways it embodies exactly the kind of fears expressed by critics during the controversy two years ago when the council's 13 separate subject committees were reformed into six main multi-disciplinary standing committees.

Sir Douglas however believes that he has found a theme which will bring out the best kind of fusion in a range of disciplines. He admits it will mean a drop in the number of research grants on offer, but postgraduate training, already down sharply since 1979, will be protected.

The theme will involve studies of changes in the labour market, new trends in public expenditure policy, the impact of information technology, management and efficiency in the public sector, the informal or "black" economy, and the "new geography" of Britain which has shifted from a Liverpool-London axis to a Norwich-Bristol one.

While the most obvious changes are economic and technological, Sir Douglas strongly believes his council must call on anthropologists, sociologists, political scientists, and others to give their analysis of issues such as race conflict, crime and new marriage patterns.

An understanding of current change is to be provided, and he thinks it is essential - substantial proportion of the analysis must come from the disparate groups united under the banner of the council, he says.

In this way the British recovery can be aided, competitiveness improved, the lessons of British industry drawn out, and the population equipped with the necessary skills to ensure the success of the information technology revolution.

Chartered secretaries attack BTEC quality control

Business and technician higher level courses came under heavy criticism this week from chartered secretaries who want them to be included in the Government's recently set up quality and validation inquiry.

The Institute of Chartered Secretaries and Administrators says in its response to the Business and Technician Education Council's educational policy document that it is seriously concerned about the present arrangements for the quality control of courses and would welcome as a frank and open debate.

"The institute cannot accept the statement that they are on the whole working well. It is our view that the current arrangements for quality control are unsatisfactory, and it is understood that there is similar concern among other bodies, including accounting and banking," the ICSA says.

The ICSA says it can speak with authority because of its experience as a leading major professional body to express support for BTEC in a practical way by accepting its courses and qualification for entry and exemption.

It adds that if a BTEC qualification is to serve as a passport to professional and other higher education awards, it is dependent on favourable exemption policies.

"These in turn are dependent upon a credible assessment and validation programme. At present BTEC's assessment, validation and moderation procedures do not, in the insti-

tute's experience, ensure that credibility," the ICSA says.

The institute argues too that "work related education" should not be interpreted solely in relation to skills learning. This it stresses is too narrow for professional bodies and may be one of the reasons why the transfer of BTEC higher national awards students to professional courses gives rise to a relatively high failure rate of former BTEC students in the ICSA examinations.

"The emphasis on job related skills that is currently required has probably gone too far. There may now be a danger of losing the benefits which accrue from the provision of a broader based business education."

Moreover it adds that is questionable whether under present arrangements BTEC can effectively reconcile the three main objectives of work related education to specific local and national requirements, acceptance by educational institutions for higher academic courses and recognition by professional bodies in realistic course structures.

Mr David Mitchell, director of education for BTEC, says it is contrary to the consultation exercise for the council to enter in any argument with a specific body, but that frank views were welcomed.

"However I must say that we have had a very wide range of views, some containing praise and a few criticisms, and that the ICSA views are not generally represented in the responses," he said.

Farming research 'dangerously poised'

The new House of Commons Agriculture Committee has reacted angrily to the Government's tardy response to a cultural research and development.

The MPs reply, released this week, says the Government's rejection of a major reorganization of agricultural research leaves the report of the "dangerously poised between the many pinnacles of bureaucracy that constitute the existing system".

The new committee goes on to reject the Government's "arguable" that new, central research authority, as

recommended in the earlier report, would take agriculture out of the dual support system for research council and university research. They say there is no reason why any new organization need lose support from the Department of Education and Science through the science budget, as enjoyed by the Agriculture and Food Research Council.

First Report from the Agriculture Committee House of Commons Session 1983-84, House of Commons 281, HMSO, £2.70.

Paisley gets a partial reprieve

by Olga Wojtas
Scottish Correspondent

The Government has made a partial U-turn on its original proposal to axe Paisley College's two social studies degrees.

The Scottish Education Department has confirmed that the social science degree is to be cut, but has increased student numbers and options in the college's applied social studies degree. Last session's joint intake to the courses was 100, but the SED has increased the applied social studies intake to 90 and added a new option in "technology and society" to its present options in social administration and social work.

The college will lose six posts in the social sciences and the resources will be transferred to technological subjects. It has said there will be no redundancies and that posts will be transferred through early retirement, retraining or redeployment.

The move to axe the degrees in

March 1983 was seen very much as a personal decision by Mr Alex Fletcher, the then Scottish Office minister for industry and education. The college was told by the SED to freeze the vacant headship of the applied social studies department only three days before interviews for the post were due to be held.

It is not yet clear what will happen to the post, but there is speculation that it may be filled by Professor John Foster, head of the politics and sociology department, which runs the social science degree.

There has also been speculation that Professor Foster's membership of the Communist Party was one of the factors leading to Mr Fletcher's attack. The Government said it wished Paisley to concentrate on technological disciplines, but Paisley's governors and academic board have consistently argued that there must be some input from the social sciences to provide balance.

Mr Jack Dale, secretary of the Association of Lecturers in Scottish Central Institutions, said the substantial retreat by the SED confirmed that "Alex Fletcher's ill-judged, rash and prejudiced move was taken without consultation."

But he added that the association was angered by the delay in the SED's decision. "Fletcher announced his mad scheme on March 31, but the SED had no formal consultation with us until December 31. Now it has dragged on for another four months, with staff very unhappy and alarmed."

Foster has also been publicly embarrassed because until now it had been unable to accept students in applied social studies for next session. There had been more than 500 applications, said Mr Dale.

What had happened was a dangerous precedent for unplanned intervention in higher education by Scottish Office ministers, he said. "It reinforces the need for a publicly accountable body to coordinate further and higher education in Scotland and monitor the actions of SED ministers."

Wales TUC intervenes in Gwent

by David Jobbins

The Wales TUC has stepped into the rapidly escalating dispute between the college lecturers union and a Labour-controlled education authority over an attempt to impose heavier teaching loads.

It intervened after Gwent County Council last week decided to advertise for lecturers to fill "vacancies" caused by the refusal of the vast majority of the county's 400 lecturers on the lowest salary grades to teach for one or two hours more a week.

Informal talks without preconditions were due by today between the National Association of Teachers in Further and Higher Education and leading county councillors in an effort to halt the plan to advertise the posts. The authority has given notice of termination of existing contracts and offered renegotiation from September 1 on the new terms. It will not say how many have accepted, but the union suggests it is about 60, largely non union or members of other teacher associations.

Gwent wants to increase the class contact hours to a maximum permitted under a national agreement to save some £400,000 a year without impairing its further education service.

But Naffie says that heavier teaching loads will do that anyway and is angered by the authority's decision to impose them. Its president, Mr Cecil Robinson, described the decision to advertise the posts as "provocative" and warned the authority that it was wrong to regard the union's members "as a load of softies."

"There are some very determined trade unionists there," he said. This week there were calls from within the union for immediate strike action if the posts were advertised but this was successfully resisted on tactical grounds by union leaders.

If the advertisements are placed, Naffie will ask the local government union, Nalio, not to handle any applications and would instruct its own members in senior positions in the colleges to refuse to handle applications and to take part in interviews.

Mr Dale Jones, Naffie's regional official in Wales, said: "There is no way that Gwent can get away with advertising posts and bringing in scabs."



Scots strike threat

continued from front page

Naffie negotiators spent much of the day arguing among themselves. "There will be a lot of sick people about this," he said.

Mr Harold Parnsworth of the Association of Principals of Colleges intervened during the full Naffie committee meeting to accuse the Naffie spokesman of misrepresenting the views of the teachers' panel.

Mr Robert Gallon of the National Society for Art Education said the way the Naffie team had steamrollered its way through had given great offence to many people. The NSA now plans to ostracize Naffie socially and in business matters.

Mr David Tranter of the Association of Agricultural Education Staffs said his association was considering asking the Secretary of State to revise the old Burnham farm institute panel.

David Trieman, leader of the Naffie teachers' panel, admitted the debate had been sharp but added: "That does not necessarily amount to a major disruption."

Bank backs new course

The Open University has negotiated a £240,000 loan with Barclays Bank to produce a new course designed to help people starting up in business.

Under the terms of the loan Barclays will receive 20 per cent of all fee income in repayment. Any surplus revenue will be treated as a royalty payment in lieu of interest.

The new course, Start Up Your Own Business, is being prepared by the OU's Open Business School and will cost £350. Its first presentation will be in January next year.

The loan will be used to finance course material and pay other initial costs. Students will receive cassettes, video tapes and literature to undertake their studies. The OU's tutorial service will also be used to support distance learning. To complete the course students will be required to make a presentation of their business plans to a panel of experts.

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Sheffield City Polytechnic MSc (CNA) in EDUCATION MANAGEMENT Part-time block release

The MSc provides an opportunity for managers in education to improve their effectiveness in the light of current management thinking and practice as it relates to education. Attendance requirements are four blocks of the day and three week-ends per year for two years. MPhil/PhD supervision is also available for suitable candidates. For further details apply to the Admissions Tutor, Department of Education Management, Sheffield City Polytechnic, 35 Collegiate Crescent, Sheffield S10 2BP. Tel: (0742) 668274. Please quote reference 676.

DON'S DIARY

FRIDAY

We deliver my daughter to school and then my husband drops me at the station. There's been a last minute panic because the hinge on my case broke so I had to transfer everything to another case - the stitching of which is coming to pieces. Maybe I'll buy some new luggage in Hong-kong!

It's the first time I've used the tube to Heathrow - it's very efficient. I was there by 10.30. My companions eventually arrive at 11.40 and we go to the desk just about the final check-in time of 12.00.

Our 1.30 flight finally left at 3pm and after a very bumpy take off I started to believe the story of "bag over London". Read, chatted, ate until 9pm (12.15 local time) when we arrived in Abu Dhabi.

SATURDAY

The stopover was just about an hour. Back on the plane with a new crew we were served drinks. I felt as though I could sleep when they announced they were serving a light meal. By the time we'd eaten it was 12.15 (5am approx local time). I tried to sleep but they put a film on, which I found distracting. Before I actually got to sleep the sun was rising (the passenger in front hadn't pulled his blind down and it shone in my eyes). So I watched a spectacular sunrise and gave up thoughts of sleep.

My case got lost at the baggage delivery but eventually turned up after I'd reported it missing. We finally got to the hotel at about 1.30.

SUNDAY

Woke at 2am and couldn't sleep: I got up and did some work until about 5am then went back to bed. Got up at 9.30 and went down for breakfast: Lem joined me and we went for a stroll around before meeting Jim, as arranged at 11.30.

We walked down to Star Ferry and crossed from Kowloon to Hongkong Island. Then we caught a bus out to Stanley, saw the beach and boats, etc then went for a quick drink. Met two British soldiers in the pub and then off round Stanley market. I bought dressing gowns for Roger and myself in silk and pyjamas and dressing gowns for both the children. I also managed to get three matching cases. Lem and Jim turned in, but for some reason I'm still not feeling tired so I went out for a wander round. Bought some silk blouses and then had a Chinese meal and then back to the hotel. I phoned home and talked to the children: apparently my husband is ill.

Then up to Jim's room for a briefing meeting about the work for tomorrow. Really it's quite difficult to plan as we don't know how many students we'll get on the new course. There are 16 from the January course and they will have tutorials with Lem and I while Jim gives lectures to the new students. If there are more than about eight new students it will be a three-way split but if there are only eight Jim may be able to manage them on his own. Jim is going to the polytechnic to give the introductory lecture explaining the idea of independent study. Lem and I will do the tutorials in the hotel (we have to pay Hongkong Polytechnic if we use their rooms).

We are going to host a dinner for the staff involved in this joint venture. We decided we'd made it English food at our hotel and try for Tuesday, if not then Thursday.

MONDAY

At about midnight I decided I wasn't going to get to sleep so got up and wrote this diary so far. I'm still not tired and it's now one o'clock. Worked off on and on until 5.30 and then decided I really must try to get

some sleep. I lay on the bed trying to sleep, without success but then must have dropped off because I was raised from a deep sleep by the breakfast delivery at 7.40. At 8am I called Lem, and discovered he'd had a Chinese breakfast around the corner. We met at reception and then headed for the pier to take junk ride round the harbour.

This afternoon I saw my first student. He should fit well at NELS, like almost every student there, he was late arriving. There was an artificial hush after the first one, but after an hour's respite I had three one hour tutorials consecutively. Finished seeing students at 9pm, after a quick wash (such clammy weather) it was up to Lem's room for a briefing. Jim and Lem were already sharing a bottle of whisky. After a brief discussion of the nine students we've seen today and the 18 possible who had turned up for the introductory session at the Hongkong Polytechnic we went out for late meal.

TUESDAY

An early student to see then I went for a stroll round before meeting Jim for lunch. No sign of Lem. Over lunch we discussed this afternoon's seminar: this is a new group of students who are paying their money to enrol on the pre course today. They were given an introductory lecture yesterday, by the end of today we should know how many students want to take the precourse which starts now and leads to the degree enrolment for 1985 (January) intake.

There were five students in my session this afternoon: Jim and Lem are running seminars this evening. As soon as I'd finished the seminar it was back to the hotel for the next tutorial with a student from the January enrolment. After I'd waited ten minutes he phoned to say he couldn't make it, I suggested 6pm instead.

WEDNESDAY

We had intended not to work today to give students time to make changes to their proposal following their first interview. In the event this was a lucky decision because today is a bank holiday. I thought I might use my "rest day" to go to the New Territories but once I knew it was a holiday the thought of crowds put me off. Instead we went over to Hongkong Island.

THURSDAY

I went for a walk this morning and bought one or two gifts. Had to change some more money (Hong-kong is so cheap it ends up being expensive).

We had a business lunch entertaining the academic registrar and her assistant and the tutor responsible for liaison between NELS and the Hongkong Poly. After lunch we went down to the poly to talk to some potential students for future courses. Then back to the hotel for a briefing session comparing the position of the new students, and finally checking on the students who are in the final stages of their precourse.

SATURDAY

Mr Lo collected me at 9am and took me to the re-creation of a Sung Dynasty Village - fascinating. He gave me a very informative tour of the wax works showing the history of China. We also talked business - the comparability of qualifications - the chances of recruiting in Hongkong as well as the degree and I signed him up as a member of the International Society for Independent Study.

Back to the hotel after lunch, then packing. Two final tutorials finishing at 5.30pm, then we popped out for a quick drink before being driven to the airport at 6.30pm. A hectic, but enjoyable visit - I think we'll probably end up with about twelve students on the degree course in October, and possibly another five, in January, so I think a success from an educational and economic point of view.

Eunice Hinds

The author is a lecturer at North East London Polytechnic's School for Independent Study. She was in Hong-kong for a week running the Precourse for the Degree by Independent Study.

Seven kinds of extra students

by John O'Leary

Officers at the Council for National Academic Awards have joined the growing band of organizations claiming that the Department of Education and Science has underestimated the likely demand for higher education in the 1990s.

They have written to the DES listing seven areas of demand they consider either to have been ignored or underestimated. And they cast doubt on the premise for the entire exercise, pointing out that over the past 15 years there has been no relationship between the number of 18-year-olds and the total student population.

They concluded that those entering higher education do not form a homogeneous group but a variety of groups in terms of age, qualifications, level of course and mode of study. "In other words, we have not one participation rate, but several, and projections of student numbers ought to include some estimation of projections of each participation rate," their note says.

The estimates contested concern:

- Part-time students, whose numbers the CNAAs expects to continue growing, rather than remaining constant at the figure of 300,000 projected by the DES.

- Young entrants who enter higher education at 19 or 20, rather than straight from school or college. They point out that more entrants to polytechnics were over 19 than below it.

- Mature entrants who are not "suitably qualified", whose numbers might be expected to grow if unemployment remains high.

- Those who join courses with a single level, who are not included in the DES projections.

- Students on short courses, who are

also excluded.

- A small group, which may be significantly larger in the second year of a course because of drop-outs.

They also urge the DES to further projections of the DES by universities and the public, although it is acknowledged that largely dependent on the state of public expenditure.

Other developments are more uncertain, the note says, future transfers and credit accumulation possible cases. And the effect of a greater appreciation of the value of higher education on the part of government, industry and the educated workforce.

Provided the response is favourable, the Government hopes to introduce the new courses in September 1986 with the first examinations in 1988. There would be two kinds of courses, those complementing a student's main field of study and those contrasting with it, which the Government

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Sir Keith tests response to the AS level

by Patricia Santinelli

Higher education institutions and in particular admission tutors' response to Government proposals for new sixth form examinations will play a major part in any decision to introduce them, the Secretary of State for Education said this week.

Sir Keith Joseph was speaking at the launch of a new consultative document proposing a broadening of the sixth form curriculum through a new examination. AS levels - Advanced Supplementary - are to be supplementary to A levels, but of the same standard, although covering only half the ground of the subject in question during two years.

The Government hopes to introduce the new courses in September 1986 with the first examinations in 1988. There would be two kinds of courses, those complementing a student's main field of study and those contrasting with it, which the Government

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favours. This would allow a student specializing in science to take an AS level in languages for example, and one specializing in the arts and humanities to take an AS in maths.

Sir Keith said he was fairly confident of the support of higher education institutions. But he had not spoken to all admission tutors or all decision makers, so it could go either way. There had to be a willingness to alter admission requirements.

"We want universities and colleges to specify an AS level as being important for entrance to the institution, this would make sure that such examinations are taken seriously," Sir Keith said.

The consultative document makes it quite clear that the willingness of students to take AS level courses will depend crucially on the willingness of higher education bodies to indicate and reflect in their admission arrangements a preference for applicants who have pursued broader studies.

It envisages admission requirements being adapted to give preference to students who have two A levels and one AS level over those who have just two A levels and to students with two A levels and two or three AS levels over those with three A levels.

Judging by the initial reaction of the Standing Conference on University Entrance whose views are endorsed by the Committee of Vice Chancellors and Principals, and that of the Council for National Academic Awards, there appears to be greater support now for a broadening of the sixth form curriculum than ever.

Dr Arthur Hearnden, speaking for SCUE, said that there was certainly more support for this in the universities than for any of the previous proposals.

"It is difficult to say in advance how successful we shall be in getting admission tutors to give the AS level equal importance. But we do realize this is a test case for the universities, and the

extent to which they can use their influence in a positive way for the education of sixth formers.

Mr Graham Middleton for the CNAAs said the council broadly welcomed the proposal as offering an opportunity to broaden the sixth form curriculum without lowering the standard of A levels.

"We shall be prepared to amend our general entrance requirements to take account of the new exams. As far as specific entrance requirements are concerned this will still depend on how much knowledge is required," he said.

● Proposals for a new nationally recognized 17 plus qualification are to be published next week by the Joint Board for Pre-Vocational Education.

AS Levels - Proposals by the Secretaries of State for Education and Science and Wales for a broader curriculum for A levels students, May 1984, DES and Welsh Office.

Leader back page

University aims to get on target

by Ngaio Crequer

The University of Durham has told the University Grants Committee that it must be allowed to reach its originally approved target of 5,000 students. Otherwise its recent merger with the voluntary college of St Hild and St Bede will become an "embarrassment" and a UGC undertaking that the university would not be worse off financially because of the merger "loses its meaning".

With the merger Durham gained 300-plus students, moving the optimum size of the university to 5,000. Durham's 1980-81 target figures were reduced from 5,500 to 5,150, and then in 1981, it was given new targets of 4,300.

According to Durham a principal reason for the UGC agreeing to build the new university library was that there would be between 4,800 to 5,000 students. Other central facilities were also expanded to meet a university of that size.

The UGC contributed £3.5m towards the cost of the merger, buying the site, paying for building work, fees and furniture.

One of the problems was the national reduction in teacher training places, although to some extent science students have taken up any excess places.

The university feels it is in a frozen position, with only partial implementation of its merger, and wants to proceed to a size of 5,000, expanding certain subjects, particularly engineering science.

It has written to the UGC: "It does not seem to make sense from a local or a national point of view to reduce the numbers of students who could benefit from acceptance by Durham and for whom the accommodation and facilities already exist. If the numbers of students in Durham are to be reduced below 4,800 (approximately) the accommodation stock will have to be reduced and the merger becomes an embarrassment".

It would only be a relatively small increase in numbers "bearing in mind the serious implications for the university if it is in essence to have to contract to almost exactly the pre-merger size, having taken on the merger accommodation having accepted the UGC's 'no detriment' promise and having spent £3.5m of UGC money on the buildings".

Under the arrangement, which applies to about half the English universities, the DES pays 75 per cent of staffing and associated costs.

Warwick has now become one of the few new universities to obtain responsible body status, which dates back to the attempts by redbrick universities, to provide extension classes for their local communities.

Warwick will take over responsibility for extramural studies on August 1. It intends to expand its present provision, and in particular hopes to encourage more mature students to take advantage of its Open Access Programme and to expand the availability of part time degrees.

The university has now applied to the University Grants Committee for funds to appoint a professor director of adult and continuing education. The department will join the faculty of educational studies.

The new department will coordinate adult education for the rest of the university, with much of the work carried out by staff engaged in teaching undergraduates and postgraduates.

Graduate trends

Just under half of all Scottish university graduates in 1982 found permanent jobs, a fall of 2 per cent from 1977. Unemployment rose over the same period from 5 per cent to 11 per cent.

V-c to retire

Dr Peter Froggatt, aged 55, is to retire as vice chancellor of Queen's University, Belfast on September 30, 1984. He will then have occupied the office for ten years.

Jobless 'need open access to college'

by Patricia Santinelli

Youthaid this week proposed a radical alternative to the Youth Training Scheme, which would give unemployed young people free and open access to education while they were waiting to get a job.

Accusing the Government of wasting nearly £1 billion on the YTS, Mr Paul Lewis, director of the charity, warned that it was guilty of creating an outcast generation of young people, the majority of whom would never have a real job.

He said the bleak reality was only too evident from figures published in the charity's

Lecturers attack secret decisions

by David Jobbins

Secrecy surrounding decision-making in the universities is to come under attack by university lecturers at their union's summer council this month.

Leaders of the Association of University Teachers are to be asked to make strong and immediate representations to the vice chancellors and principals on the need for more openness in institutions.

As well as institutional consideration of issues such as tenure and funding, the AUT is angered by the tendency towards secrecy displayed in a number of incidents in the past year or so.

They include the talks between Sir Keith Joseph, Secretary of State for Education and Science, with a selected group of vice chancellors on privatization, and the University Grants Committee's proposals for pharmacy and oceanography.

A composite motion to the AUT's summer council in Manchester in two weeks, expresses concern at an apparent erosion of civil liberties and drift to authoritarianism, and states that universities themselves must be open and accountable not only to staff and students but the wider community.

Backed by Stirling and Aberdeen local AUTs, it deplores the "clandestine" operations of the UGC and the Committee of Vice Chancellors and

Principals, and secret meetings with ministers.

It dismisses the "widespread abuse" of reserved business on councils and courts and the use of confidential documentation on issues such as tenure as "inconsistent with the defence of academic freedom".

Calling for greater disclosure of information within universities and throughout the education system, it suggests that union leaders should draw up a code of practice aimed at encouraging freedom of information while protecting individual privacy.

A further composite motion condemns the Government over the withdrawal of trade union rights at the Cheltenham communications headquarters, backs the AUT executive over its no-compromise opposition to the move, and attacks the buying out of union membership as a "betrayal of the principles of a free society and a step towards totalitarianism".

But the dominant issue for council is likely to be on the salary negotiations. The executive is scheduled to give a special report on developments including the outcome of next week's third meeting of Committee A, the first stage of the negotiating machinery and the refusal of the employers to move beyond 3 per cent.



Lord Murray of Newhaven, a former chairman of the University Grants Committee, chats to Dr John Burnett (left), principal of Edinburgh University, in an elegant lounge in the university's new student residences.

Lord Murray was intermediary for an anonymous donor whose gift of £500,000 enabled the university to renovate a derelict tenement to provide a 134-place residence.

The day after opening Edinburgh's new residence, Lord Murray opened Strathclyde University's 94-place Murray Hall, also built with £500,000 from an anonymous donor.

Pharmacists call for four years

by Jon Turney

Science Correspondent

A working party of the Pharmaceutical Society has called for all pharmacy degree courses to have an extra "year" (funded jointly by the Department of Education and the Department of Health).

This is the main recommendation of a first report from the society's working party on pharmaceutical education and training, set up two years ago. The report says the third year of a three-year course should be taken up by six month placements in hospital, community pharmacy.

The four-year course would be registration but further vocational training would be demanded by new graduate took sole charge pharmacy.

The report has not been accepted by the society's council, and is considered in detail later this year. Comments have come in from academics and industry. The group have already drawn a protest at Bradford University, which runs a four year sandwich course.

Pharmacists at Bradford are not amused when they saw the installation of Glasgow University's rector - a black and white.

For Dr Michael Kelly, Glasgow's Lord Provost, was sporting the city's ceremonial ermine robes which have been banned since 1975. When a former lord provost unsuccessfully sought a one day dispensation to wear the robes in 1977, Dr Kelly led the opposition, claiming the robes were an anachronism, "the urban equivalent of the grouse moor".

When the new rector was reminded of the incident, he confessed: "Good God, I forgot about that." He had worn the robes, he explained, since this was the first time a lord provost had become rector of the university.

The overlap, however, has lasted only a week, with Dr Kelly coming to the end of his term of office as lord provost, and this has saved him from any disciplinary action from the Labour group. But there are now moves to ensure the robes are not moved again by placing them on permanent display in the People's Palace Museum.

The president of Glasgow's Students' Union, Mr. A. Higgins, senior registrar at Loughborough University, has been appointed chief executive of the Polytechnics Central Admissions System (PCAS), from August 1984. He will be his job to build up the system, which will be run in partnership with the universities' admissions offices. PCAS will be operational for September 1986 entry.

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Sculpture club

More than 1,000 would-be sculptors took advantage of the Easter sunshine to take part in a six-day event at Breton Hall's Yorkshire Sculpture Park.

Almost 3,000 sculptures were made from five tons of timber offcuts and 40 pounds of nails and a truckload of timber disappeared in an hour at the height of the workshop.

College staff were on hand to help with technical problems as an acre of wooded parkland underwent a transformation.

A family from Barnsley built a near-life-size Viking longship, an elderly couple carved a group of dancers and a number of Easter crosses had to share the upper slopes with an unexplained set of gallows.

Seeing red over black and white

Glasgow District Council's ruling

Labour group members were not

amused when they saw the installation

of Glasgow University's rector -

a black and white.

For Dr Michael Kelly, Glasgow's

Lord Provost, was sporting the city's

ceremonial ermine robes which have

been banned since 1975. When a

former lord provost unsuccessfully

sought a one day dispensation to

wear the robes in 1977, Dr Kelly led

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Provincial universities take the lead

from Craig Charney

PARIS French provincial universities have caught up with those in Paris, according to a survey by statisticians at the University of Compiègne.

The survey ranked 63 French universities according to research activities, drop out rates and "dynamism" — course creation, vocational preparation, and information services. The study was based on data from all but four of the country's universities and published in the news magazine *L'Express*.

Among the surprises in its findings was the strong showing of universities outside the capital. The two leading positions in the overall rankings were occupied by the universities of Grenoble 1 and Toulouse III, with the number three spot held by the University of Paris I. On the whole the 13

Parisian faculties, into which the former Sorbonne was divided after 1968, ranked no higher than their provincial counterparts. Three were in the top 10, but seven fell into the bottom half of the list, with Paris III bringing up the rear in sixty-third position.

The two top ranked universities are both scientific faculties and possess modern American style campuses outside Grenoble and Toulouse. With 4,500 and 8,500 students respectively, they are known for recruiting students and lecturers widely in France and abroad. Twelve per cent of Grenoble students are foreigners. They are also closely linked with nearby national research centres for nuclear and communication research in the case of Grenoble, and space research for Toulouse.

The venerable University of Paris I by contrast, is France's largest faculty

with 25,000 students. A centre for arts, humanities, and legal studies, the old faculty in the shadow of the Pantheon remains loyal to the Sorbonne heritage of academic rigour.

A striking showing was made by one of the country's smallest universities, Mulhouse. Ranked number eight overall, Mulhouse was number one on "dynamism" and number one among small universities for research.

The academic research rankings were based on numbers of research students and research teams, as well as research support from inside and outside the institution. In the social sciences and humanities, these three leaders were respectively Lyon II, Montpellier III, and Paris I. Among the larger scientific and medical universities, the highest rankings went to Grenoble I, Toulouse III, and Paris XI.

Only four universities indicated the

majority of their students completed the two year "first cycle" of higher education: Paris IX, Paris XI, Dijon and Avignon. Drop out rates of over 80 per cent were reported by 19 of the 60 institutions which provided information on the question.

For "dynamism", Toulouse was followed by the universities of Valenciennes and Paris X. Valenciennes was the leader for pedagogical innovation, and Grenoble I on communications.

Mulhouse was number one on professional preparation, including vocational-oriented courses, guidance services and follow-up. Half of French universities have no vocational guidance services whatsoever.

In order, the top 10 universities in the overall ranking were: Grenoble I, Toulouse III, Paris I, Aix-Marseille I, Brest, Paris IX, Paris XI, Mulhouse, Lyons II, Avignon.

Extra bite taken out of Apple

from E. Patrick McQuaid

CAMBRIDGE Competition from retailers and marketeers has caused an unforeseen problem for the discount Apple Computer Company.

In recent months the national firms — Apple, International Business Machine and the Digital Equipment Company — have signed sales of microcomputers and accessories to students, teachers and administrators who purchase through their college accounts on a plus retail agent.

Even if until the early 1990s industry announced it would sell at a discount to 24 colleges and universities, reduced wholesale, which the company could then retail to their students, attractive discount. At Yale, for example, students and staff may pay for the new Macintosh personal computer for \$1,125 (£803) while at Princeton the same hardware and software goes for \$1,200 (£857). An Apple quote at Harvard was closer to \$1,275 (£875).

The Macintosh retails around \$1,785 and in Ann Arbor, Michigan, where the state university has signed the Apple College Company local retail, the deal allows unfair trade and discriminates against its business.

Eighty per cent of the University of Michigan's acquisitions will be marked for department and laboratory use. Recently, though, some 600 microcomputers were ordered for retail.

Local businesses contend that the university has no position to use its funds to help defray the cost of labour. Overall sales are down, and product specific profits are falling well.

Retailers are also miffed that students and staff are using their money to buy Apple products but not purchase them. Consumers are experimenting with the computer, querying sales representatives, which have the best features and returning to campus to purchase the retailer's time and advice and the university's discount.

More alarming is the chance for the growth of a campus-based computer blackmarket, consortium members say. At Harvard University, the undergraduate daily newspaper has been contacted by commercial dealers advertising space. "If you have an Apple Macintosh computer and would like to sell it, I'll buy it," claims Texas dealer. He says he will pay students between \$300 (£215) and \$355 over their purchase price. He also says he will sell the computer to students at schools on his own discount. A consortium at his own discount. A constant detail says he'll run ads offering to buy the computers from "liberal students and radicals who hate computers" and pocket several million dollars on the side.

Consortium members are considering measures to work against a black market which include limiting the computer to one customer and no customers sign agreements not to resell the computers or face disciplinary action, and matching manufacturers' serial numbers with individual agreements.

Students expressed mixed opinions. "I'm a capitalist," said one, "I want to take a bite out of the Apple too," added another. "My ethical price — \$300 (£215)." The situation was even worse for

Graduate glut is cause for concern

from Barbara von Ow

MUNICH West Germany's private industry is not in a position to absorb the alarming glut of graduates looking for jobs, a leading research institute has concluded. In a recent inquiry of companies' response to the dramatic expansion of German higher education over the past two decades, the Institute of German Economy (IWE) found that industry could do little more than help alleviate graduate unemployment.

The number of German students has risen from 291,000 to over 1.2 million over the past 23 years and is expected to soar to 1.6 million by the end of the decade. While only 10,000 graduates were unemployed in 1973, more than 100,000 are estimated to be without a job at present.

Even if until the early 1990s industry absorbed every second graduate — rather than every third as it did at present — bringing the share of graduates in private industry to 16 per cent from seven, more than 800,000 young graduates would still be looking for jobs, the report noted. A survey of highly unlikely that industry's capacity would expand to such an extent.

Engineers and economists had the best job opportunities in industry, according to the study. While the prospects for law students had somewhat dimmed, sociologists, political scientists and psychologists bore the brunt of the problem with an unemployment rate of 12 per cent.

Left loses out in French advisory elections

from David Dickson

PARIS Disillusionment with some of the university reforms introduced at the beginning of the year by the Socialist government of President François Mitterrand appears to be resulting in a swing towards the political centre among university teachers.

In national elections held last month for members of the committee responsible for advising the minister of education on conditions of employment in universities, the two major left-wing university unions received previously almost unrepresented on the advisory committee, managed to obtain 35.8 per cent of the total vote, giving it five out of the 15 seats on the committee reserved for representatives of university staff.

The latter union claims to have benefited substantially from defections from the other two main unions, principally by those who feel that the government has gone too far in its reforms which are aimed at giving the greater professional content to undergraduate courses and to increase the involvement of all ranks of university staff in academic and administrative decision making.

The situation was even worse for

In the chemical and engineering sectors more and more jobs required academic qualifications, it noted. The trend was less marked in the banking and insurance sector. Job opportunities were best in the fields of data processing, management, trade and industrial research.

The growing "academization" of certain jobs meant that graduates pushed skilled workers out of their jobs or found jobs specially tailored for their university qualification, the study pointed out. However, "exaggerated demands" of many graduates mixed with their lack of practical skills often put up barriers, as did legitimate demands by non-academic workers.

Many of the companies interrogated had expressed fear of a growing overqualification of university graduates which, considering the limited number of appropriate jobs available, could lead to personal dissatisfaction and internal tensions.

All companies agreed that graduate unemployment could only be solved in a "concerted action" involving employers, unions, universities and the government. Students had to get more practical training and the number of graduates had to be adjusted to the nation's professional needs. Most important, however, the graduates themselves had to change their attitude; and become aware that a university degree was no longer an automatic key to a company board.

PARIS Disillusionment with some of the university reforms introduced at the beginning of the year by the Socialist government of President François Mitterrand appears to be resulting in a swing towards the political centre among university teachers.

In national elections held last month for members of the committee responsible for advising the minister of education on conditions of employment in universities, the two major left-wing university unions received previously almost unrepresented on the advisory committee, managed to obtain 35.8 per cent of the total vote, giving it five out of the 15 seats on the committee reserved for representatives of university staff.

The latter union claims to have benefited substantially from defections from the other two main unions, principally by those who feel that the government has gone too far in its reforms which are aimed at giving the greater professional content to undergraduate courses and to increase the involvement of all ranks of university staff in academic and administrative decision making.

The situation was even worse for

Move to stop the brain-drain

from P. E. Burke

OKLAHOMA Budget problems brought about by "Reaganomics" and the fall in oil revenues, which provide funds for universities in Oklahoma, have resulted in salary freezes at Oklahoma State University and a move to stop the "brain drain" at the University of Oklahoma.

According to Dr William Banowsky, dean of the University of Oklahoma, some academic salary increases are to be paid out of donated funds in a move "to honour and keep outstanding teachers and researchers and to restore optimism on campus".

"This period of austerity has sapped the enthusiasm of many of our best teachers and researchers and we face the very real danger of losing faculty members to other universities and to industry," Dr Banowsky explained.

The matter of "poaching" Oklahoma academics by out-of-state colleges and by industry was becoming a matter of concern and the term "brain drain" was becoming widely quoted.

In order to better its finances the University of Oklahoma has decided to require students from abroad to deposit their tuition fees for an entire academic year in advance.

Meanwhile, a university-wide survey conducted by the Faculty Council of Oklahoma State University says about half the faculty are now "actively looking for another job because of past, present or proposed budget reductions".

Oklahoma State University has a specialty in agriculture and horticulture and is reckoned to be among the top half-dozen colleges with this speciality in the United States.

Other universities and private interests are already approaching these OSU scientists with tempting salary offers and research programmes. "Our staff are being strongly recruited now because others have heard about the budget crunch here," said Dr James Osborne, head of the Land Economics Department at OSU. "They know the stature of our members and some of the new ones that we have hired in the last three years."

'Less advanced' worried about mobility

from D. B. Udalgama

COLOMBO The problem of free mobility of students, particularly at postgraduate and research level, was one of the vexed questions which engaged the attention of the Association of Commonwealth Universities at its council meeting in Sri Lanka.

It was noted that in the wake of the United Kingdom fee increases for foreign students, several other countries in the Commonwealth, like Australia and Canada were doing likewise. This affected student mobility and the situation was becoming more difficult.

It was agreed that the association should try as far as possible to ensure free mobility which also helped countries which were less academically advanced. It was pointed out that foreign students' research enriched the host country.

The role of government or grants committees towards the universities, was the topic which provoked the greatest interest, if not controversy. It was agreed that the ultimate aim should be for little or no control of universities by governments or grants committees.

But it was noted that each country had its specific problems and that the

Dutch minister clarifies new degree structure

from Jessica Kuper

LEIDEN The uncertainty surrounding the new Dutch degree structure has now been removed, following an announcement by education minister Mr William Deetman.

In 1981 a radical change in the degree structure was introduced by the then minister of education, Abraham Pais. The traditional five-year degree (which often took 10 years to complete) was to be replaced by a four-year degree, which had to be completed within six years.

Advised at the time as an "Anglo-Saxon" degree structure, there was, however, some confusion as to whether the four-year degree was to be equated with a bachelor's or a master's degree. Student and faculty opposition was fierce, and professional associations threatened to withhold recognition from new graduates.

The minister accordingly promised that willing and worthy students could proceed to a second stage degree, which would carry further professional qualifications, or provide a first experience of research. The plans were

Theological apartheid clash

from Carolyn Dempster

JOHANNESBURG A theological division over apartheid has resulted in a week-long boycott of lectures by the entire theological student body at the coloured University of the Western Cape.

The 110 boycotting students, all members of the theological student organization Kolomoia, have stated that they will not attend lectures by seven white lecturers until the lecturers resign from the white Nederduitse Gereformeerde Kerk (Dutch Reformed Church).

Their action was prompted by the confrontation between the white NGK and its coloured counterpart, the Nederduitse Gereformeerde Sendingkerk (NGSK).

In a declaration of 1982, the coloured NGSK declared that the moral and theological justification of separate development — apartheid — was a heresy and went against the spirit of

the gospel.

Last month the general moderation of the white NGK denied the Status Confession and said the application of separate development "in brotherly love and justice" did not go against the tenets of the bible.

The students have demanded that lecturers who hold dual membership of both reformed churches, surrender their membership of the white NGK. They have also resolved that in future, guest lecturers in the theological faculty will have to prove, through teaching and action that they find apartheid contrary to the essence of the gospel of Jesus Christ.

The students are currently in consultation with the university authorities, the lecturers and the curators — a body which oversees the theological school and which is headed by Dr Allan Boesak, president of the World Alliance of Reformed Churches.

Staff and other facilities in Sri Lanka were limited and if certain courses were set up in several universities, it would only dilute higher education.

The other main topic was the contribution by universities to appropriate technological developments.

As the first crop of new-style students approach the end of their four-year degrees, Mr Deetman has announced that for the vast majority there will be no second step.

Teachers' training will be given in teachers' training colleges, and other vocational courses will be handled on the job. Only in the medical faculty will planned second-phase training programmes be implemented. Further, only 1,500 students nationally will be allowed to proceed to research each year. It is generally expected that these proposals will become law before the summer recess.

● A further 2,000 jobs will disappear in Dutch universities in the next 25 years, according to plans tabled in Parliament by the minister of education. In the year 2010, according to the plan, there will be 2,260 professors, 500 fewer than at present, and proportionate reductions in the lower grades. These job losses accompany a restructuring of the academic corps, introducing a strict restriction in the number of staff who will be promoted to the grade of senior lecturer.

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Survey shows pessimism of young Poles

Polish student attitudes today are marked by pessimism and a swing to the right, according to a new survey.

Results of the poll, the first since the suppression of Solidarity and the Independent Students' Union in 1981, were reported in a lecture given at the University of Warsaw in January. Though not yet published in Poland, they appear in the May issue of the Paris magazine *L'Alternative*, a respected outlet for writings of eastern European dissidents. The sample consisted of 650 Warsaw students who responded to questionnaires in 1983, half from the university and half from the polytechnics. The poll was the latest in a series conducted at regular intervals since 1958 by Professor S. Nowak, of the Warsaw University Sociology Institute.

The anonymity of the questionnaire, the willingness of students to give anti-government responses, and the relative moderation of repression in the universities all suggest that the survey findings are meaningful.

The most striking result is general pessimism regarding Polish society. Fully 70 per cent say the country is in a deep crisis which it is unlikely to resolve while only 15 per cent expressed any optimism about its future.

Reflecting this disillusionment, students' personal hopes centre narrowly on their private lives and situations. The ambition most frequently expressed was to earn enough money in small private enterprises to live comfortably and avoid dependence upon state firms.

The students' greatest desire is a happy life with family and friends. Few show ambition for political office or social advancement though the survey did show there is a small hard core minority of committed democratic activists. In any case, 65 per cent of the respondents feel it is unreasonable for them to make long term plans, since too much regarding their future depends on chance.

Another notable result was evidence of the striking growth of anti-socialist sentiment among Polish students, following their disappointment with government promises of reform and Solidarity's efforts at social renewal in 1980 and 1981. While in Professor Nowak's 1978 survey, just 19 per cent of those questioned were against the evolution of the world in a direction similar to Polish style socialism, in 1983 64 per cent were against it.

The survey confirmed the depth of student sympathy for Solidarity and their hostility to its suppression. An overwhelming 84 per cent considered Solidarity's 15 months of public activity a positive period in Polish history, while only 12 per cent thought that the state of things which drove it underground had been imposed in the interests of society.

The survey also revealed how frequently Polish students turned to sources not subject to state control for their news. While 38 per cent cited Polish mass media among the factors influencing the formation of their political opinions, the most 24 per cent mentioned the press, 24 per cent mentioned television, 12 per cent mentioned radio, 12 per cent mentioned newspapers, 12 per cent mentioned magazines, 12 per cent mentioned books, 12 per cent mentioned other sources.



Boy George drummed out

Boy George may be a hit on the charts on two continents, but his records are "not appropriate" on the shelves of Brigham Young University, the leading Mormon college. Consequently, the records of Boy George and his group Culture Club have been withdrawn, pending a review by the church authorities.

Roger Utley, bookstore director at BYU, said: "It is more an evaluation of the artist than of his music."

Indian medics protest

from A. S. Abraham

BOMBAY

Medical students and junior doctors in Gujarat state in western India are up in arms over the provincial government's sudden decision to start a six-month crash course in Western allopathic medicine for students of *ayurveda*, an indigenous medical system. Once they have done the course, these students will be able to practise allopathy in emergency cases.

The protesters say that while they have to compete very hard to be admitted to medical colleges and must study five and a half years before getting a degree, *ayurvedic* students, whose academic accomplishments are usually much more modest, will be able to pass off as allopathic doctors by getting in through the back door.

They are also against mixing the two systems, because they feel that six

months is too short a time in which to equip *ayurvedic* students to give allopathic treatment, especially in emergency cases.

In 1978, *ayurvedic* students in Gujarat had demanded and been given a short, comparative course in allopathy. But nothing was done to implement the concession.

However, an imminent amendment to the 1963 Gujarat Medical Practitioners' Act would allow doctors to practise only in the system in which they trained. To ensure that *ayurvedic* students get over this hurdle, the new course is being rushed through.

The Gujarat government's defence is that an emergency allopathic course is necessary to train *ayurvedic* doctors to work in villages, which allopathic doctors usually shun. But allopathic students point out that over 400 unemployed allopathic doctors might be willing to go to the villages if the state government gave them incentives.

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Turks review academic screening

from Bernard Kennedy

ANKARA

The Turkish Higher Education Council seems to be backing down on an attempt to subject all university teaching staff to continuous screening by their superiors. The HEC issued its "directive on registers" at the beginning of the year, but it was not until March that public attention was focused on the issue.

The suggestion that it might be amended came at a meeting between Professor İhsan Dogranci, the president and personification of the powerful HEC, and members of the parliamentary standing committee on education.

According to the directive, teaching staff were to be "marked" not only on their academic performance but also on their work-rate and attachment to Atatürk's principles. A poor mark could lead to a change of job and poor marks in successive years to dismissal. Moreover, records were to be kept of lecturers and teaching assistants' height, weight and religious inclinations.

The directive has been lampooned both in parliament and the press. One MP wanted to know how feasible it would be to maintain an up-to-date record of a lecturer's weight. More seriously, doubts have been raised as to the qualifications of primarily right-wing administrators to assess without bias the nationalism of their staff.

The directive is seen as just another way of doing away with teaching staff whose political views conflicted with those of the HEC and its appointees and what was to be the connection between religious beliefs and job prospects.

For the moment, the directive remains in force, and Professor Dogranci has talked only of amendment — not repeal. However, it is clear that the row over the issue, although belated, has been greater than the HEC expected, and it will now be somewhat harder for them to discipline or dismiss staff on the basis of the registers.

Students join leadership race

Two Canadian university students have joined present and former cabinet ministers in the race to replace Pierre Trudeau as prime minister and leader of the federal Liberal Party.

John Frederick Cameron, aged 24, and Chris Mostowicz, aged 21, plan youth-oriented campaigns that will raise issues like university access and unemployment.

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Getting the wheels of industry rolling

by Peter Mauger

China's drive for modernization is limited both by financial restrictions and by the shortage of technicians at all levels. The present campaign to convert up to half their senior middle schools to vocational schools of all kinds is handicapped by the distrust of parents for this kind of education but also by the shortage of suitable teachers. A new kind of normal college for training technical teachers is now being started with three prototypes — in Changchun, where most of China's trucks are made, in Nanjing (Nanking), where the college concentrates on the building trades, and in Tianjin, China's second biggest industrial centre.

All-out attack on the assumptions

Ngaio Crequer analyses the universities' responses to the UGC debate on strategy



Numbers that don't add up

Almost every submission challenges the tacit acceptance by the UGC of Government demographic assumptions, and the Royal Society, CVC and the Association of University Teachers evidence is lined up to the contrary.

Ulster says that estimates of demand in Northern Ireland are markedly different from those of the DES. There is also the Northern Ireland trend of strong participation by mature students.

Leeds says demand for graduates is unlikely to diminish, and they point to the contradiction of trying to reduce university funding, but diverting higher proportions of students towards science and engineering. Leeds, Birmingham and others question the close tying of funds to student numbers.

Sussex says the age participation rate is too low and not enough regard has been paid to the need for a "well-educated citizenry." Government policy should be that opportunity for the "less fortunate" will increase. They mention special groups like immigrant communities. It is utterly folly, socially and economically, not to recognize the need for an increase in student numbers.

Essex and Sheffield too, want wider participation.

Stirling says the UGC should be willing to raise targets if universities can raise outside money for posts. St Andrews would like to determine its own student numbers (and be funded accordingly), and its own tuition fees, giving more power to student choice. On the proposed shift towards technological, scientific and engineering courses, there is some disagreement. UWIST, UMIST and Heriot-Watt are ready to respond, and Salford would like to see the UGC showing that it was in favour.

But there is a strong and more substantial opposition to the policy. Bath, also, like the above, a technological university, says the country would not be well-served by a massive shift, the civilising effect of the arts could not be disregarded.

Hull's attempts to move towards the sciences was arrested by the 1981 cuts, but it says, "no student is worse off than one with an unwanted vocational skill".

According to St David's, Lampeter, attempts to convert arts students to scientists are a flop because material of school standard is taught by university teachers who are not good at it, b) are more expensive, and c) resort having to do it.

Durham says it would be unwise for the shift to go any further. Demand anyway was so high that there was an element of nonsense in planning for something which need have no relevance for them.

Leeds and Bristol would not want further reductions in their proportions of arts students. Nottingham is uneasy about the desirability of the shift because of the lack of success of previous manpower planning. Warwick is against, and Queen's says it would be costly.

Now are universities happy with the stress on vocational subjects. Sussex says it is dangerous to distinguish too sharply between vocational and non-vocational. The most important products of universities are trained, critical, flexible and open minds.

UEA says industry and commerce say they want above all people who think independently, critically and creatively. Aberdeen is saddened by the undervaluing of the humanities and social sciences in Sir Keith's letter, which is frankly pallid.

The shortest university answer to the University Grants Committee's 28 questions on a future strategy for higher education is from University College, Cardiff.

The second of the seven short paragraphs read: "Fairly soon after Churchill took over direction of the war effort in 1940, he was asked what his plans were. His reply was 'KBO'. When asked what that meant, he replied 'Keep bugging on'; that is precisely what Cardiff proposes to do."

Probably fortunately other universities were not so laconic and in these two pages we analyse what they have said, taking the broad themes of research, money, the UGC, courses, numbers and closures. Every institutional response has been read. In the case of Ulster the views are those of the New University of Ulster working party, and of Aston (the only university which refused to submit its response to *The Times*) those of the draft reply.

Pressing need to keep up to date

The universities are almost unanimously agreeing earmarking of grants with only Salford accepting a partial earmarking system. The attitude to "indicating" research money is less firm, with many institutions seeing it the same as earmarking, but Newcastle, City, Stirling, Imperial, Heriot-Watt, Brunel, and possibly Hull and Kent being in favour.

Birmingham would like more guidance from the UGC, possibly after visits, and London, and possibly Oxford, supports the idea that universities should prepare research plans and give these to the UGC, to assist them in triennial reviews.

Lancaster summarizes the arguments against earmarking. Universities are better at making these decisions themselves because selectivity is often appropriate as between one part of a department's activity and another, growing points may lie between disciplines, and data must be historical, which means that flexibility, innovation and new developments are less likely to attract support. And others point out that it is an attack against institutional autonomy. As Birmingham says, "new blood" is earmarking.

Salford would be in favour of a system whereby a part of funds is earmarked for research, but not by subject. Stirling says the UGC should indicate how much money has been set aside at national level for each subject. Durham says earmarking is only sensible when money is provided for new specific projects.

A large number of universities agree that research has been hit worse than teaching. But not all fall in with the implication that science has been hit, but not the arts.

As Leeds says, research in the arts is not undertaken at zero cost, and Leeds, Aberdeen, Southampton and Glasgow call for a humanities research council. Glasgow wants one for law too. Bangor wants the UGC to say it supports research in the arts.

Glasgow, Edinburgh, Manchester and Sheffield refuse to accept the distinction made by Sir Peter Swinnerton-Dyer between scholarship and research.

The universities all say why research has been hit. There are fewer staff to do it, support services have been cut, travel funds have diminished, teaching load has increased. Glasgow says that contract research staff (one quarter of all academic staff) work in unsatisfactory conditions, in great insecurity.

A number talk about library cuts. Lancaster has had a 20 per cent reduction in book and journal purchases. Warwick says the cost of books is putting some research out of reach. Swansea points out that the need to purchase journals and abstracts in science departments is overriding the need to buy undergraduate texts.

Reading says that by October 1985

As though by previous arrangement almost every university begins by attacking the demographic and financial assumptions behind the questionnaire. Some hit harder. It is requests for advice on policies already decided upon, says Southampton. It is about instruments of policy, not policy itself, says Lancaster.

It is not about higher education at all, but methods of cutting expenditure, "a deplorable way to treat the parable of the talents" says Heriot-Watt.

A number chide the UGC for not saying that more money must be provided just to implement Government policy on raising standards, and meeting demands for engineers, London, York, Lancaster, Bradford, UEA and Hull want a clear statement on the role of universities and higher education, and some say what that is.

Only Aston says: "The letter is a genuine attempt to gather information from universities, and the UGC is

seeking the least contentious solutions."

The universities are short on positive proposals themselves, save adequate funding on a longer planning horizon, for solving some of their problems.

There is popular support for exchange of staff, and York says that with increased electronic communication, travel might not always be required, in order to share staff. Liverpool suggests a "university service" like the civil service, with permanency of employment, but mobility of staff round the system, as demand dictated. Aston suggests increasing use of self-study and computer-based instruction. The universities give strong support for tenure.

Imperial may have found the pot of gold. The USS (universities superannuation scheme) has £200m per annum to invest. A fraction of that could be invested in student residences, the modernization of catering,

development of real estate.

Bath wants rate levels rolled back, recurrent grants to give universities incentive to minimize rates expenditure. Leicester suggests that educational companies that want to expand here should guarantee a proportion of their research expenditure to higher education institutions.

If the going gets tough Glasgow says of charging £200 per person per day to their staff involved in Government work. They also suggest full reimbursement through tax relief of industry's research expenditure in universities.

However, there are some eccentric touches. Brunel, talking out its success, notes that in a recent list of "high technology milestones" who quoted their universities of origin Brunel was the only one that appeared twice.

Public relations gets two mentions from Swansea who say that experience courses are good for public relations and from Aston who say that information officers should promote the importance of universities. Aston has still failed to replace its department information officer.

Finally, good news for Bradford, Birmingham and the like. Brunel suggests that any policy of closures should be preceded by a study of a university whose name begins with

Poly-bashing kept to a minimum

Salford, as usual, pulls no punches. "The large number of small institutions in the public sector gives adequate scope for significant rationalization. It appears to make no sense to continue seriously to damage the universities while retaining problems in the public and direct sectors for the acquisition of student degrees."

In fact there is not a great deal of poly-bashing in this context. Nothing, which would be dismayed by closures, says the polys could be more degree work. Newcastle says a substantial number of institutions would be preserved "even if the shelter of higher education must concentrate on teaching of a different kind."

St Andrews and Heriot-Watt think they should not have been asked questions on closures. For York the only reason for closure would be a political decision and the UGC should not be a party to it. On the basis of numbers, and the need for more research, there was no reason for closure between now and 1995. Nor does Hull think there is a substantial case for closures.

Leicester says, "selectivity dictated by lack of funds is at best demoralizing for the borderline applicant who is conscious of the quality of his/her work, and at worst such decisions may appear faddish, political or capricious."

Every university that mentioned the subject supported the dual support system, and usually added that it must be restored. The universities are meant to run "well-found" laboratories but Leicester says the standards of "well-foundness" are getting higher because of increasing technological sophistication.

Taking selectivity away from universities might eventually lead to designation of institutions as teaching or research, says Leicester. They put a strong case against this, mentioning that this would ignore the continuous stimulation of research and teaching.

Glasgow, Reading, Manchester, Southampton, Oxford and Imperial refer to the problems of out of date equipment. To get up to date, says Imperial, would need a single injection of £10 times the annual equipment grant, followed by annual grants of several times the present level.

Edinburgh says obsolescence in teaching equipment has become the norm in several departments. For Cambridge, "there is a limit in modern science to the extent to which sheer intellectual brilliance can carry the day without the necessary investigatory tools."

Finally, although most universities welcomed new blood "most stress the disadvantages: the distortion, lack of university autonomy, and the fact that now it only exists at the expense of other university resources. A great many do not wish to see it continued in present form."

Scenarios of bankruptcy, closures, redundancy, mediocrity

Further cuts of the kind referred to would be "disastrous" say London, Cambridge, and Leeds.

The universities were asked to comment on the effect of a 1 per cent or 2 per cent cut per annum to the end of the decade. The replies are gloomy reading: compulsory redundancy, course closures, worse staff student ratios, lowering of standards, less research, an end to innovation, the breakdown of services and a trend towards mediocrity.

For Southampton, Queens and Bangor bankruptcy or non-viability would be the result. A 1 per cent cut for Leicester would reduce staff to "barely supportable" levels. Two per cent would so damage the university that "it might still exist in name. As a university, accustomed to standards of research and teaching at their present high levels, it would be dead."

Glasgow produces eight pages of financial models to show the effect. A 2 per cent cut would mean the closure of eight arts departments. The library could do little more than



upgrade undergraduate texts.

Glasgow, London, Southampton, Nottingham and Liverpool fear they would be unable to satisfy professional requirements demanded in medicine, or dentistry. Many universities are worried about effects on the National Health Service.

At 2 per cent City would become fossilized. But they argue for special treatment, preserving the recurrent grant and allowing them to take privately funded additional students. Their grant, based on 2,020 students is "irreducible" if standards are to be maintained.

How the UGC goes about its job

There is widespread and trenchant criticism of the University Grants Committee. It is too close to the Department of Education and Science, the nature of its role has changed, it must be more open and explain its decisions, and its secretariat must be strengthened to enable it to do its changed management job.

Many universities stand by the constitutional position of the UGC but point to its departure from its own standing terms of reference. Its independence or closeness to DES is questioned by Manchester, Hull, St Andrews, Kent, Southampton, Birmingham, Heriot-Watt, London, Bath, Edinburgh, Stirling and York.

St Andrews says since the late 1970s the UGC has become an arm of government, rather than a buffer. It must restore its role and win back the confidence of the universities. There should be better dialogue between UGC and universities, written reports after visits, and reasons for funding decisions. Nor should it dictate what universities teach.

Birmingham too says the UGC has been acting as an agent of Government rather than the universities, and they want this corrected. They are concerned about direct Government encroachment through the DES, and they are also worried about last-minute adjustments to grant. They urge openness, and the recruitment of the UGC's own staff.

Manchester says it should be seen to express more frequently views independent of Government. There should be more openness of discussion of capabilities of universities and more with the development of subject areas. This has gone too far, both as an approach to university planning and operation.

Edinburgh thinks the UGC needs to regain the universities' confidence, and must be strengthened. Its standing with both universities and government has declined. It should be seen putting university views more explicitly to government. There should be a larger non-university, non-educational membership. Edinburgh is one of a small number of universities that proposes some kind of regional link-up with the UGC.

According to Imperial College, the main role of the UGC has been to impose on universities the consequences of DES or Government decisions, rather than advise Government on the needs of universities.

There should be explicit reasons for recommendations. Subcommittees should be more professional, with written reports after visits. It should not be dominated by academics but should draw on a range of expertise from industry, the professions and elsewhere. It should cease being part-time, but there should be full-time secretariats.

At Bradford a significant number of staff think fundamental reform is necessary to make it more representative. Suggestions now are an increased main committee, but a reduced length of membership from five to three years, to involve a wider group of

Questions and answers

The University Grants Committee asked 28 questions covering resources and student numbers, capital, balance of subjects, dependence on public funds, the nature of universities, validation, tenure and premature retirement, the Leitch proposals and the role of the UGC.

There were 571 responses, broken down as follows: 55 from universities, 12 from vice chancellors and university officers, 290 from groups within universities, 103 from other bodies (ie national bodies, research councils, etc) and 111 from individuals.

The UGC will submit its response to Sir Keith Joseph by the end of the July. The Government, in reply, is likely to issue a Green Paper.

At Oxford "libraries, museums and buildings would be seriously, if not scandalously neglected". The damage would be so great recovery would be laborious, if not impossible.

Imperial would have to close two departments. As every one of their departments, they claim, is one of the best in the country, and all are directly relevant to the country's wealth creation, the foolishness of such thinking was self evident.

Newcastle would have to contemplate closure of halls, catering, health and careers services. One per cent would mean for Salford a 56 per cent cut over ten years. On 2 per cent they could not make a rational response on closures. At Manchester, where 140 academics have already left, there is little room for manoeuvre.

At St David's Lampeter no changes could be made unless staff retired, or they were promoted on the "ultimate promotion".

Bath finds the question "almost incredible" after 1981. If wants the UGC to challenge Sir Keith "to lift him out of his despairing and

dispiriting view of higher education". Bristol wants to see the UGC publicly putting the case for more resources.

A reduction in resources would mean a swing away from science to less expensive subjects, says Bath, Keele, Southampton, Stirling and Leeds.

It would be incomprehensible to cut back engineering courses when the Engineering Council is calling for more funds, says Surrey. Bangor, Glasgow and Birmingham say that before such cuts could be implemented a major reappraisal or a new "Robbins" would need to be considered.

At Brunel the worse cuts would mean 9 out of 17 departments would be unviable. A task force is already examining the implications.

But for Aberdeen "We cannot usefully be willing accessories before the fact to our own mutilation and we decline to give a detailed response to the destructive hypothesis in question two".



Universities would like to see stronger, broader schools

Not a single university favours a two year degree course. Many see good arguments for broadening the sixth form, but most add the caveat that this can only be done by extending degree courses to four years.

Leeds and Imperial would like to see science and mathematics strengthened in schools, and a better understanding of engineering. Imperial would not favour the universal replacement of A levels but says it wants some broadening without significantly reducing standards in specialized subjects. The assumption that boys and girls should study a different mix of subjects should be attacked.

No one is in favour of a broader sixth form for some (those who want it), but not others. Or as UEA puts it, "the pressure on universities to exhibit the highest possible A level scores for their intake in order to prove their academic standards and the reluctance of schools and students to take risks with their chance of entry, mean that any optional broadening would almost certainly fail. We favour a universal change in the sixth-form curriculum."

There is virtually no support for a longer academic year. We are a 12-month institution anyway, says Salford. Southampton is prepared to look at changing the pattern. Lancaster always has discovered more disadvantages than advantages.

As more than an answer stresses, and not just from the Scots, Sir Peter Swinnerton-Dyer did not understand the Scottish system when he wrote his letter. His characterization of their degree system as 2 plus 1, rather 3 plus 1. The Scots put forward their broader school system as a model.

Opinion is against any form of Council for National Academic Awards. Everyone is very happy with the external examiner system.

Brunel says that ending CNAA accreditation would force an association between the universities and post-graduate and graduate work of polytechnics which would lead to a re-definition of the intellectual standards of degrees.

Edinburgh is in favour of replacing A levels with a more broadly based curriculum. It notes that the Leverhulme conclusions were not checked for their accuracy, content or logic.

Keele makes the point that in their dual honours system they already provide the breadth that others are looking for.

Heriot-Watt says universities and schools in partnership can facilitate a shift to science-based courses. University staff could work for short periods in schools, and schools staff and pupils could do projects in universities.

Oxford says there should be more flexibility in the higher education system. Many students could benefit from different types of teaching. A says it is

willing in principle to enter into discussions on credit transfer. A broadening of the sixth form is urgent. A number of universities call for easier transfer of students across the binary line.

But for Warwick increasing competition is already putting pressure on pupils to take four A levels. UMIST is also concerned at the emphasis given to A levels. They give weight to school reports and motivation. They are worried that if there was a broadening, the national demand for highly trained graduates in industry, and commerce would not be met.

York proposes that rather than two-year modules, universities and polytechnics could set up on campus extension colleges offering courses, pre-degree schools for post-school age groups.

"Quite apart from meeting the case for positive discrimination towards deprived groups and thus helping to expand the constituency for higher education, this layer of activity might well play a part in institutional collaboration across the binary line."

On accreditation again there are mixed views. While many universities are generally happy with their experience of accreditation by outside bodies, there is considerable concern that the process inhibits innovation.

It is also often difficult to strike the right balance between the detailed requirements of the professional body and the more general educational needs of the subject. A number of universities mentioned difficulties in engineering.

Oxford gives the full picture. It says that following the establishment of the Engineering Council, the professional engineering institutions "have so revised their criteria for accreditation that both this university and, it is understood, all other universities which offer a unified course in engineering or engineering science are finding it difficult to obtain accreditation."

In engineering science and economics, and in engineering, economics and management accreditation had not been obtained because the undergraduates would not obtain specialist knowledge of the relevant fields. "This is particularly serious in the case of the latter course, introduced at the specific request of the UGC and may well affect recruitment to it."

Oxford also says that in medicine the requirements of the Royal Colleges and their higher professional training committees may be so rigid they inhibit academic medicine.

Aberdeen says additional money may be necessary if accreditation bodies demand extra requirements. Nottingham says the pressure to meet these demands gives accreditation bodies a direct influence over internal resource allocation procedures.

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Pauline Stafford



The trials of keeping up with the movable feast

Easter was very late this year. If I were in any doubt about it in January or February, the fact came home forcibly during the last two weeks of a 13-week term, as students visibly wilted and complained of spreading an inadequate grant even more thinly than usual. The weight of that interminable term descended most heavily when I went to give a paper in Oxford on March 8. They were in semi-festive mood, going down the following day, for me a further four weeks of term stretched ahead. By such marginal differences are English student distinctions maintained. Now the term has finished at last, and over a week into vacation the last of my third years are disappearing exhausted for a hard-earned break, and I wish, not for the first time, that movable Christian feasts could be permanently anchored in their wanderings.

Easter is the great vagrant of the liturgical calendar and its literatures have long perplexed, if not annoyed. The reckoning of Easter was a cause of concern and much dispute in the early Christian centuries. The dramatic events of the death and resurrection of Christ were firmly tied to the Jewish Passover, with Easter day fixed two days after the Passover itself (Good Friday). The Jewish feast was celebrated on the full moon of the first month of spring, but the growing Christian desire for a demarcation from Jewish custom and for the fixing of Easter on a Sunday, let alone the shift from luni-solar to solar reckoning produced difficulties and inconsistencies.

At Nicea in 325 Easter was fixed as the Sunday following the first full moon after the vernal equinox, and the quaterdeciman practice of celebrating it at the Passover set aside. Which might have been simple had the lunar and solar years coincided and the Julian calendar synchronized exactly with either. Constant effort was made to produce a calculation which would ensure that Easter was kept correctly by all Christians on the same day.

The computation of time became an obsession of the learned. In the sixth century a 304-year cycle for Easter reckoning was adopted, but this fell foul of the 11-minute difference between the Julian and the solar years which moved the two increasingly out of step, 10 days out of step to be precise between 325 AD and 1582. In the latter year with the awe-inspiring confidence of certainty Gregory XIII suppressed 10 days of the calendar to bring the calculation back into line and avoid the danger of celebrating Easter one month too late. He provided for the omission of three leap year days in every 400 years to obviate recurrence of the problem. All of which leaves us with a festival manifestly celebrating the spring, tied to the full moon and the equinox, and occasionally, as this year, extending student cash and staff nerves to the edge of breaking point.

The retention of this archaic system must seem odd to many in our post-Christian society. It has little relevance to most of our students whose grasp of the basics of Christianity is tenuous. What can I mean to that well-intentioned if not very bright student who several years ago produced an answer which involved comment on Pentecost. Full marks for effort; be diligent, consulted works of reference; but the Jewish origins of Christianity confused him. Some falling of historical knowledge had occurred when he arrived at the feast for the deliberate choice of a Jewish festival by a Christian.

ian king for a symbolic consecration.

This lack of basic Christian knowledge is an ever-growing problem for all those involved in teaching and transmitting Western culture. For many years I have taught the development of Renaissance art and ideas. To point the contrast with the medieval world view I have frequently discussed with my students the differing treatment of religious themes in medieval and Renaissance art.

The Annunciation has always been a favourite example. The potential in terms of human drama and emotion of that moment when the angel dropped in unexpectedly on Mary to announce her incipient virgin conception was something not lost on most Renaissance artists. But I had waxed long on the nuances of apprehension, surprise and fear before one timid voice rose from the end of the table to ask what the Annunciation was. Now I tell the story first. The time must be long overdue when a course in the Christian religion becomes an obligatory component of humanities courses, a lesson our colleagues across the Atlantic have been quicker to learn.

As a child Easter Sunday appeared to me the magnificent culmination of an entire week, indeed a season of preparation. I had given up sugar in tea (successfully), sweets (sporadically) and made positive efforts at generalized charity (now and again) until the ceremonies of Holy Week. Then we carried our palm crosses home and hung them up to guarantee good luck and ward off evil for the coming year; we attended services of awesome solemnity as altars were stripped and tabernacles left void; until at the Easter vigil the new fire was struck from flint and the Paschal candle lit.

Admittedly the rituals could go a little awry; surely they always have, po-faced writers on the subject please note. The beginning of the Easter vigil (like Christmas midnight mass) coincided a little too closely with closing-time. "Beer-tears" as my mother called them, punctuated the emotional proceedings for those who sat near the back, bearing provided an odd counterpoint to the more sober themes. The striking of flint into tinder to kindle the new flame posed its own problems in the wind and rain-swept church porch of early spring in northern England. I often wondered what the early Christians did on such occasions without the surreptitious aid of Mr McGuire's cigarette lighter, but then as I now tell my students, it is so important to remember that Christianity is a Mediterranean religion.

We would no sooner have shopped or worked on Good Friday than leap over the moon; we fasted, ate our fish and were forbidden to play. Few people now take Good Friday or any part of Holy Week as a holiday; few shops close or activities cease. The profit and leisure motives have long overridden religious considerations and most people prefer a long weekend. If the old fluctuating Whitsunide could be tied to a theoretical spring week, Easter? But then perhaps we could all take the Oxbridge six week break instead, a concept that seems a little less likely, even possible, a few years hence.

Enid Hutchinson looks at the gradual growth of women's studies

Making their mark on mankind

In the early 1950s I tutored a number of courses for the London district of the Workers' Educational Association which might today be called women's studies. "Women in the Changing World" was the title thought up by the then education secretary of the Towns-women's Guilds as a project for the social studies groups that formed part of the guilds' range of interests. The WEA was asked to provide the tutors.

I explored women historically, anthropologically, contemporaneously and through literature. I became of necessity a single multidisciplinary pundit. It also confirmed me as a feminist. Whoever else received enlightenment academically and politically, I certainly did.

My chief difficulty lay in securing the tools for my own and the classes' enlightenment. All the social histories were great on the Chartists and the growth of trade unions and - mostly men's - rise in democratic status but the women's suffrage movement was dismissed in a couple of lines. Economic historians seemed to ignore women's working lives just as the anthropologists saw only men working in the fields.

Feminism was at a low ebb at that time. Young women, graduating from universities, couldn't get quickly enough to the kitchen sink. And it was the kitchen sink then for washing machines were as yet thinly spread. (I remember we discussed in the tea-breaks the drip-dry fabrics and soapless detergents that were just appearing on the market - important new points for women's lives.) It seemed to be the expressed wish of every girl to have four children and girls' schools were being urged by male educationists to prepare their alumnae for the domestic life whatever else they did for them.

So little was being published and I needed material to feed myself and my students. A chance reference in a footnote sent me to what had been the Women's Service Library and was now the Women's Library and was now the Women's Library and was now the Women's Library. I found a treasure trove - histories, biographies, government reports, the records of the waves of feminist activity that were being lost from contemporary view - recovered from bombing and alive and well in Marsham Street, Westminster. Miss Vera Douie, its begetter and sustainer, guided my reading, supplied my book boxes, and filled the gaps left by the current experts in various disciplines. Many of the books I found there, however, were recent years, been reissued under Virago and other labels and new works have poured from new presses. So much so that 59 new non-fiction works of a feminist nature published since 1982 are at present under scrutiny for this year's Fawcett Book Prize - an annual event, incidentally helping the Fawcett Library to maintain its utility to an ever-increasing user.

Women's studies has been developing as a separate element in higher education in the United States since 1969. In this country 10 institutions of higher education offer one or more postgraduate courses under such titles as sexual divisions and society, feminism and social science, gender and education as variants of a general title of women's studies. Some 26 institutions offer aspects of women's studies in undergraduate courses.

A recent addition has been the Open University's "The Changing Experience of Women". A team of specialists in sociology, education, biology, literature, history, mathematics, physics, economics, anthropology and literature, drawn together with an over-arching course director, to mount this new credit, 16-unit course that includes eight television programmes, two audio-cassettes and video-tapes. In this way the fear of overstepping one's mark, the occupational hazard of the academic specialist, has been minimized.



Redressing the balance: from *Women's Studies: a resource pack for tutors*, published by the National Extension College and the Workers' Educational Association's Berks, Bucks and Oxon district.

founds the promoters of women's studies in higher education. For there can be no greater sin than to stray from one's own path inside the groves of academe. The argument goes on back and forth both in the United States and here. Is the aid of women's studies best served by integrating them into the curriculum of relevant conventional disciplines or by creating autonomous departments in their own right, with their own research and methods making a distinctive and discrete contribution to higher education? Either way there is a risk of being ghettoized. A recent work, *Theories of Women's Studies* (ed. Gloria Bowles and Renate Duelli Klein) brings the arguments together, mostly in the more developed American context, but equally relevant here.

How can one ensure that integration doesn't lead to lack of status? Would a women's studies element in say, the faculties of law, medicine or economics survive cuts that might have to be made, especially if some new and exciting and more profitable aspect of the departmental discipline appears on the horizon? And would a separate women's studies department get its hands on the funds it needed to secure its position, finance its research and maintain its impeccability? Women rarely control the sources of financial power and women's concerns have a low priority when it comes to grants and endowments, as Virginia Woolf pointed out long ago.

I was reminded of this when discussing the place of women's studies courses with John Taylor of the WEA. There was usually some hesitancy on my part. I was told, but how about trade union studies. I asked. These surely came within the area where political interest and academic content met. The difference was spelled out. Trade unions had money to put in and women, though dominating numerically in the student body and predominating in the voluntary running of the branches, have only the power of the individual (and usually the family) purse.

They have nuisance value, however, and women's studies exist on a sizeable scale within the WEA. There are courses within all relevant disciplines and titles like women's studies, child rearing and women poets and novelists appear in the programmes nationwide. It took some time for the WEA to get so far and it is difficult to find the extent of the penetration. Combining before much activity on this score was reported. Preparation for retirement seemed to get more attention. By 1977-1979 there was a women's studies group in each of the 20 districts, though not a constituent body of the association.

The author has many years been active both in women's studies and adult education. This article is part of a *Women's Studies: a resource pack for tutors*, published by the National Extension College and the Workers' Educational Association's Berks, Bucks and Oxon district.

Alex Pravda predicts dramatic changes in the highly secretive leadership of the Soviet Union

Changing places - behind the curtain

The last two years have seen nearly as many leaders come and go in the Kremlin as the previous 65. For a state long distinguished by leadership continuity - Lenin, Stalin, Khrushchev and Brezhnev between them saw out 13 British and American counterparts - two successions in 18 months marks a dramatic change.

As we pause for breath between Kremlin successions - and given Chernom's respiratory disease the next may not be too far off - this might be an opportunity to reflect on the significance of recent events. What light do they throw on Soviet leadership politics: do they deepen our understanding or only reveal the depths of our ignorance? More important, do leadership changes matter; do they merely alter the pecking order in the Kremlin or constitute turning-points in Soviet policy and development?

The Soviet Union remains a highly secretive society. While data on social and economic developments is now relatively plentiful, the closer we get to the political centre, the scantier information becomes.

With the exception of Khrushchev's reminiscences, published in the West, Soviet political memoirs convey very little about the leadership politics of the post-Stalin period. Emigré and dissident writers rarely concern themselves with Kremlin politics which they typically regard with disdain as a process best understood by reading *The Godfather*.

The Medvedevs are almost alone in paying attention to leadership politics. For obvious reasons this is not a subject that figures seriously in Soviet academic literature. Privately some well-informed academics convey very little information through their roles as advisers, may provide Westerners with information on individual leaders or decisions. Valuable though such comments are, they can seldom be attributed or checked. Similar problems of verification affect the occasional assessments of Kremlin politics from East European sources.

Most of our knowledge of leadership politics comes from a meticulous reading of the Soviet press. This involves using Kremlinological techniques to read between the lines of official announcements and speeches to tease out the real political subtext. As Soviet newspapers print political bulletins rather than news, the nuances of coverage and language may reveal the political views of the institution - party organization, trade union or the army - that runs the paper.

This is especially the case during periods of leadership change, for succession raises the temperature of Moscow politics and provides a field day for Kremlinologists. Major speeches take on more than the usual political significance as other Kremlinological indicators, such as the order of signatures on obituary notices or the way in which leaders line up on ceremonial occasions (the Soviets set great store by protocol).

Candidature campaigns are often accompanied by increased political sniping. In the early phases of the Brezhnev succession for instance, the Moscow evening paper, controlled by a Politburo member, doctored a photograph to cut a political rival out of a senior leadership line-up. Political damage can also be wrought by leaks to the Western media of scandals affecting possible contenders.

Such sniping may indicate the growing intensity of personal conflict but tells us little about the contours of political relations between contenders. These can be traced to some extent by studying the subtext of their speeches. The terms in which they refer to other politicians and to their policies sometimes can locate individuals fairly accurately. When combined with the full range of Kremlinological data, the textual evidence does shed some light on the subterranean process of the leadership contest which, in a characteristic remark, Churchill likened to "two dogs fighting under a carpet".

Predicting the outcome of leadership contests is extremely difficult as Central Intelligence Agency and United States Department of State Kremlinologists found to their cost in the 1950s and 1960s. Since then our understanding of leadership politics has been greatly enhanced by the analysis of career patterns from which we can generalize with some confidence about the qualifications needed to reach the top.

When combined with Kremlinological evidence, hard data made it possible to predict the result of the Brezhnev succession. Once Andropov became a Central Committee secretary in May 1982, most serious observers favoured him over Chernenko on the grounds that he was better qualified for the general secretaryship by his proven ability in a wide variety of responsible jobs. When the same criteria were applied earlier this year, they pointed to Gorbachov as Andropov's successor.

Chernenko was dismissed as a non-starter, not just on account of age but because of his undistinguished, narrow

career - he rose without trace on Brezhnev's coat-tails - as well as because he had failed in his earlier bid. The fact that Chernenko got the post, however close the deciding vote, reminds us of the pitfalls of imputing "rationality" to the Kremlin "selectorate" and underestimating their caution and conservatism. On the other hand, Chernenko's age and health suggest that he was appointed as a stop-gap to ease the transition from the septuagenarians to a younger group of leaders headed by Gorbachov, Romanov and Vorotnikov. Their appearance in strategic positions signals the imminence of the long-heralded rise to dominance of a new generation.

So what? may be the response of some seasoned observers: young or old, they are all senior apparatchiks whose opinions differ only marginally. Of course the top elite agree on fundamentals such as one-party rule, democratic centralism and the propagation of a Marxist-Leninist ideology. But these leave plenty of room for differing interpretations.

While individual opinions and institutional perspectives differentiate elite views, some of the most interesting divisions run along generational lines. The 50-year-olds, now reaching the upper rungs of the political ladder have followed career paths that contrast with the road taken by the septuagenarians. They are far better educated than their elders and more skilled in political management than trouble-shooting. Such skills tend to make the younger elite less dogmatic and more pragmatic and flexible in their approach to problems.

At this point the sceptic may raise another objection: generational differences are surely submerged in the overriding struggle for power that dominates Kremlin politics. Clearly the ill-defined and protracted nature of political succession means that power issues preoccupy Soviet politicians to an even greater extent than they fill the thoughts of their Western counterparts. Yet the salience of power does not make policy irrelevant or purely instrumental. The growth of oligar-

chical conventions over the last 30 years has opened up greater scope for policy debate in the Politburo. More recently, with leaders striving for consensus, policy disagreements have often been resolved by compromise. Political succession strains such compromise, and exposes and catalyses policy change. The various changes of the succession process affect policy in distinct ways. When lobbying for support, candidates make deals with key constituencies, such as the military, which may shift policy commitments. Within the Politburo candidature campaigns may well be advanced by proposing fresh solutions to longstanding problems.

Breaking away from established policy becomes easier once the transfer of office has taken place. Ideas blocked by the old leader often find favour with his successor. For a while a new general secretary typically pays lip-service to policy continuity, he actually seeks to set a new style and make his mark with new initiatives, usually in the form of campaigns like Andropov's drive for discipline or Chernenko's for ideological mobilization.

In the early stages of consolidation power, though, the general secretary's scope for policy innovation beyond such campaigns is limited by the complexity of the Cabinet he has inherited from his predecessor.

Once the general secretary has built his own team, he can launch major policy initiatives, as did Khrushchev from the late 1950s and Brezhnev more cautiously in the 1970s. Given the highly-centralized structure of the Soviet system, it is only through such leadership initiatives that real policy shifts can materialize. Still, without personnel changes to clear the way, even leadership directives can run into the sand. And it is the capacity of leadership change to accelerate turnover in people as well as policies that makes political succession the closest approximation in the Soviet context to a change in government.

Neither of the recent successions have yet produced a change in government. Andropov had time only to set a new style, state some policy intentions and make a start on personnel. Chernenko seems to have agreed, as part of a deal to get the general secretaryship, to support the experimental industrial and agricultural reforms favoured by Andropov and now advanced by the progressives, notably Gorbachov. Yet no breakthrough is likely here unless and until Gorbachov becomes general secretary, for it needs a united and energetic leadership to overcome the inertia of the Soviet bureaucracy which has a distinguished track record of emasculating reforms.

Predicting dramatic change in the Soviet Union is a notoriously risky business. All the same it looks as if Chernenko's political demise will trigger a political succession that will bring into power the first post-Stalin generation to rule the Soviet Union. All the evidence thrown up by the last two successions suggests that the next one will produce the most important change in government the Soviet Union has seen for 30 years.

The author is lecturer in politics at Reading University.



Pallbearers led by Konstantin Chernenko (centre left), the present Soviet leader, carry the coffin bearing his predecessor Yuri Andropov across Red Square for burial.

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Lines of succession

The apex of the party's administrative machine and Cabinet office to the Politburo, he controls key appointments and channels much of the information reaching the Politburo. How successfully a general secretary translates these advantages into leadership power depends on his personal qualities, his handling of policy and prevailing leadership conventions.

Since the end of Stalin's long personal dictatorship over the Politburo informal conventions have tended to circumscribe the power of the general secretary and turn the Politburo into a collective leadership.

Becoming general secretary is only one stage in a tripartite process of succession (candidature, transfer of office, consolidation of power) that is made far more protracted and uncertain than its Western equivalents by the absence of effective rules and mechanisms.

The candidature stage begins in earnest when the incumbent leader shows signs of serious political, or more usually physical, debilitation. This can last for several years as in the Brezhnev succession. Because no formal mechanisms exist to designate a successor, candidates emerge informally from the ranks of full (voting) Politburo members and lobby for support among a "selectorate" of Politburo colleagues and key constituency leaders in the party, govern-

ment and military establishments. The transfer of office takes place quickly to minimize the chances of succession giving rise to a general crisis. Within hours of the demise of the old leader (Khrushchev is the only one to have been removed) the "selectorate" meets in cardinal-like conclave to choose the new general secretary. The final decision is taken by a vote of full Politburo members.

Their choice is then speedily endorsed by a special meeting of the Central Committee, the party's parliament, which formally has the right to elect both Politburo and Secretary.

The more split the Politburo nominating vote, the greater the difficulties the new general secretary will meet in consolidating his leadership authority. Unlike the British Prime Minister the general secretary cannot simply appoint his own Cabinet. Instead he has to collaborate with senior oligarchs to promote supporters to the Politburo and, what is far more difficult, to ease out major opponents. Only when a general secretary has thus consolidated his power in the Politburo (and in the Central Committee) can the succession process be described as complete. It took Khrushchev four years and Brezhnev seven from prominent

ce to something resembling dominant leadership.

Their successors, being older men, have tried to forestall this stage. Andropov managed within 15 months to make an impressive number of personnel changes at secondary levels and get several supporters into the full Politburo, yet failed to dent the ranks of his leading opponents. The absence of personnel change at the last Central Committee meeting suggests that Chernenko has hardly embarked on the consolidation stage.

Many Western observers see the succession process as the weakest part of the Soviet political system. Its protracted nature draws out and intensifies internecine strife, while the absence of any regulated tenure of office makes too much hinge on the physical health of the leader and can lead to general political sclerosis.

From a Kremlin perspective such defects, however worrying, may seem acceptable. The determination of tenure by physical survival may present a problem in the near future not because the candidates for office are too frail, but because they are likely to stay for 20 years.

Yet the alternative of a fixed term, let alone the introduction of a real Central Committee election (as tried in Poland in 1981), would carry the risk of far greater political instability. For such a regularization of succession would probably extend the political competition, now restricted largely to the Kremlin, to all levels of the party hierarchy.

Efficiency in universities is much more than just keeping the books straight and cutting waste (whatever that may mean). The organization and structure should encourage scholarship in its best sense and allow new ideas to develop.

Let us state the problem: universities are complex organizations. Even the smallest deal with several thousand people—students and staff—and have a turnover in tens of millions, sometimes more. Objectives are often stated as a mixture of research and teaching. Most academics prefer the former and their career rewards come from research. Nevertheless, students have to be taught and administration intrudes.

Senior academics, who have been promoted largely because of research ability, are expected to run the system smoothly. It is remarkable that it does work so well. No doubt a lot of the credit goes to long suffering registrars, bursars and many devoted officials. Given the size of the operation no one could be paid much either.

There are other problems: there is a saying that riding the Grand National and love affairs are similar—easy to start and very difficult to finish. It is much the same with university staff: easy to hire but very hard to fire. Even the least autocratic business organization relies on that as an ultimate sanction. Persuading people who have little to lose is a formidable task as anyone who has tried it will know.

Most academics like power but don't care much for administration, which requires fidelity, time-consuming but necessary detail. We all want our own freedom but don't like others stepping onto our territory. Meanwhile vice-chancellors, registrars, deans and finance officers usually prefer things to be neat and tidy. Predictable responses, orderly procedures which move decisions from sub-committees and boards of studies to senate and council. In other words, the management like to feel that they are in control. I don't blame them; that is a tidy process of decision making so easily be mistaken for effective action.

Anyway, the world is rather messy: it keeps changing in unpredictable ways. Adaptation and neat, clear procedures are probably incompatible. The classic response to uncertainty is, first, to put the lid back on the cauldron. So we have new committees, more committees, working parties and longer rules.

Playing the university game

Delegation and control: Thomas Kempner makes his contribution to the great debate



However, people are very clever at getting round all those and then the process of seeking more, and more, detailed control continues. A lot of energy can go in this game.

Our major difficulty in managing a university is that objective performance measures are impossible to find. Moreover, the long term nature of the investment in people makes judgment that much harder. Yet it must be done: all managers face this problem and so do vice chancellors and senior academics. No performance standards are strictly comparable in the same subjects and it becomes even harder when comparisons are made across subjects and departments. All we can do is to look very carefully at a list consisting of, among others: age and qualifications of staff; external honours and appointments; publications; external grants received; number of research students and PhD completion rates and time; undergraduate performance. All the above have flaws and none should be applied in a wooden or simplistic manner.

We want to be fair. It is part of our culture. But fair to what and whom? Suppose in our university we have Professor X. He is lively, very energetic, bit of a barrow boy, gets good students and staff. He also attracts grants like a vacuum cleaner. He seems to know how to manage a growing enterprise or, which is just as good, has people near him who can take care of such matters. He is also a nuisance: he breaks the rules and ignores the system. Try and control him and he gets frustrated; there is also an implied threat that he will take himself and his

more able circus to the next town. What shall we do with him?

My suggestion is to build on success. Let that group have some independence and give them more if results justify it. Our judgment should be on results. Often easier said than done; matters are rarely as clear cut as above. Moreover, we don't like Professor X much either because of his combative temperament and flashy behaviour.

Now contrast X with Y. Professor Y makes no trouble, he is helpful and courteous, and good on committees. Sound and reliable, he doesn't ask for much nor does he get it. His subject is not moving fast, and is a well established and relatively stable discipline. We suspect that in some years from now there may be a radical shift of emphasis which may require re-alignment or amalgamation with a newer subject. Still, it will do for the present; there are other problems.

High on that list is Professor Z. We don't see him very often. Someone, our predecessors, of course, made a mistake when he was appointed. His subject area is of growing importance and is going through very radical changes. Neither Z, nor most of his staff, have the wit or the energy to do much about it.

So if the whole system is so difficult to manage could one try some alternatives. For example, we could begin by identifying some areas where common standards must be applied and central control is desirable. Second, a rather grey area where the requirement for

central control is not clearcut and may change over time and according to circumstances. It might also vary depending on the degree of confidence in the competence of the individuals to whom decisions have been delegated. The third is the one where a very high degree of autonomy and local decision making would be encouraged, but always with the proviso that if the situation changes so do the rules.

In management we are learning that the type of organization, and the sort of people we employ in particular parts of it, have to be contingent upon — depend on — the task to be accomplished. This in turn means a willingness to allow, and indeed encourage, variety. Some parts of an organization require the careful and meticulous application of rules. At the other extreme we need people who are highly innovative and entrepreneurial. The former respond well to rule and a hierarchical command structure. The latter emphatically do not; they don't like being supervised.

The problem, of course, for senior managers in the university is that we need both types. This creates tensions and accusations of unfairness. There is no helping that; for it is equally unfair to treat each section in the same way. The innovators can make an equally strong case to be treated differently on the grounds that they bring new resources and life into the university.

What shall we do in an uneven world? To Professor X: You have a conditional licence. We are prepared to

build on your success and the way you are the more freedom you get. As you demonstrate competence you can have more autonomy over budget allocations, including the rather odd expense accounts. We can even relax the rules about the number and seniority of appointments, pay and conditions, although that will not happen all at once. But remember three things:

First, academic standards must be maintained in a proper fashion and your suspicious colleagues in other departments will surely keep an eye on that. Second, the financial report system will not be under your control. Third, if things go wrong, don't blame us. You will be held accountable and at the worst you risk your own job. Well, you did say you wanted freedom.

To Professor Y: We appreciate the sound and careful way you run your department. Equally good is the way you willingly shoulder committee work and the university's time-consuming but necessary administrative work. It is pleasant to have departments which cause no worry. Yet the risk is that it will become too comfortable. When you next make appointments you must choose lively, perhaps even rather difficult people, who can ensure the vitality of your department.

To Professor Z: We are going to have a difficult conversation. Things must change and soon. Current conditions are available for early retirement. If you have served the university well in the past, the arrangements for your departure will be made as honourable as possible — emolument and part-time work.

University managers have a hard job. It is not easy to run a large organization efficiently at any time and alone in a period of cuts and uncertainty. Nor is the rate, and possibility for, change uniform across faculties and departments. Nevertheless, universities, like organizations, must adapt and be repositioned to take into account new scholarship and the impact of the political and social world.

My conclusion is that universities are not suitable for rigid structures and control; they are too complex and varied for that. Yet the pressures are in the opposite direction and they should be resisted.

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Mirjam Foot profiles the 'prince of librarians' Sir Anthony Panizzi

The legacy of an adopted son

"Every day hundreds of scholars, from every land, pass beneath the bust of Panizzi above the entrance to his great Reading Room. Few stop to think of the debt they all owe to the genius of this most remarkable man." These are the closing words of Edward Miller's eminently readable biography of Antonio Panizzi, the prince of librarians, who devoted his life to creating a British national library and to making it the greatest and most important in the world. It was to honour this man and to keep the memory of his name alive that the generous and anonymous donor of funds to enable the British Library to set up a series of lectures in bibliography, named this trust the Sir Anthony Panizzi Foundation.

Antonio Gennasio Maria Panizzi was born on September 16 1797 in Brescello in the Duchy of Modena, the son of a pharmacist. He went to local schools, to a grammar school in Reggio Emilia and thence, in 1814, to read law at the University of Parma. His interest in books and libraries had first been awakened at school in Reggio where Gaetano Fantuzzi ran the school library, and later at Parma where Pezzana, the librarian of the Biblioteca Parmense befriended him. When a student, Panizzi joined the *Sublime Messeri Perfeiti*, one of the secret societies devoted to the freedom and unity of Italy.

In 1818 he took his degree in jurisprudence and started a legal practice in his father's house in Brescello. The conflict between being on the one hand a successful young lawyer with friends in established circles, and on the other an ardent patriot and member of a by now outlawed secret society of the Carbonari type, came to a head after the revolt of Naples. Many arrests were made, including those of close political friends, and Brescello having become too hot to hold him, Panizzi made his escape northward and arrived in Lugano in the late autumn of 1822. In Switzerland he wrote and published a book exposing the reign of terror and the activities of the secret police in Modena. This angered Duke Francis and Panizzi became a marked man.

Orders for his arrest were issued in February 1823 and in October of the year he was tried and sentenced to death *in absentia*. Meanwhile Panizzi had made his way to England where he arrived in May, with, in his own words "not quite a sovereign in his pocket, knowing no one nor a word of the language". London was swarming with refugees and Panizzi, armed with letters of introduction to William Roscoe, a patron of Italian literature, decided to try his luck in Liverpool. He soon became an intimate of the Roscoe family circle; he taught Italian, his English improved, and he devoted himself to the study of Italian literature and history.

In February 1828, through the influence of Henry Brougham, Panizzi was appointed to the chair of Italian language and literature at the newly established University of London, thus exchanging a modest prosperity for desperate poverty once again. He had few pupils and filled his too ample leisure with further study and the preparation of editions of Bolognese and Aristotelian texts. This activity brought him into contact with the scholar and book collector Thomas Grenville, and a warm friendship which was to prove so beneficial, both to Panizzi himself and to the British Museum library, developed. It was Grenville's influence, coupled with that of Brougham, now Lord Chancellor, as well as Panizzi's own "great acquisitions and talents" that secured him in April 1831 the appointment as Extra Assistant Librarian in the Department of Printed Books at the British Museum.

At this time the Department of Printed Books was little known, little regarded, and — as the national library of a wealthy and powerful nation — totally inadequate. The majority of the books were housed on the ground floor of Montagu House in Great Russell Street, accommodation quite insufficient for the growing needs of the department. As early as 1815 a young scholar, Robert Smirke, had been appointed by the trustees to draw up

plans for a new wing, and the gift of George IV of his father's library in 1823 convinced Parliament that new premises had become essential. Among Panizzi's early duties was that of cataloguing the French Revolutionary tracts, not an easy task and one that led him to devise rules for the cataloguing of anonymous books. He also catalogued current books, put the Banks collection in order, and arranged and catalogued the rare books in the King's library. He worked hard, too hard according to his friends, often staying late to work by candlelight, until this was forbidden for fear of fire. Panizzi's editions of Boiardo and Ariosto, begun when an underemployed professor of Italian, were published in nine volumes between 1830 and 1834. He then prepared an edition of Boiardo's *Sonetti e Canzone* which he dedicated to Grenville. He contributed reviews and articles to various periodicals, but his increasingly pressing museum duties took toll of further scholarly publication.

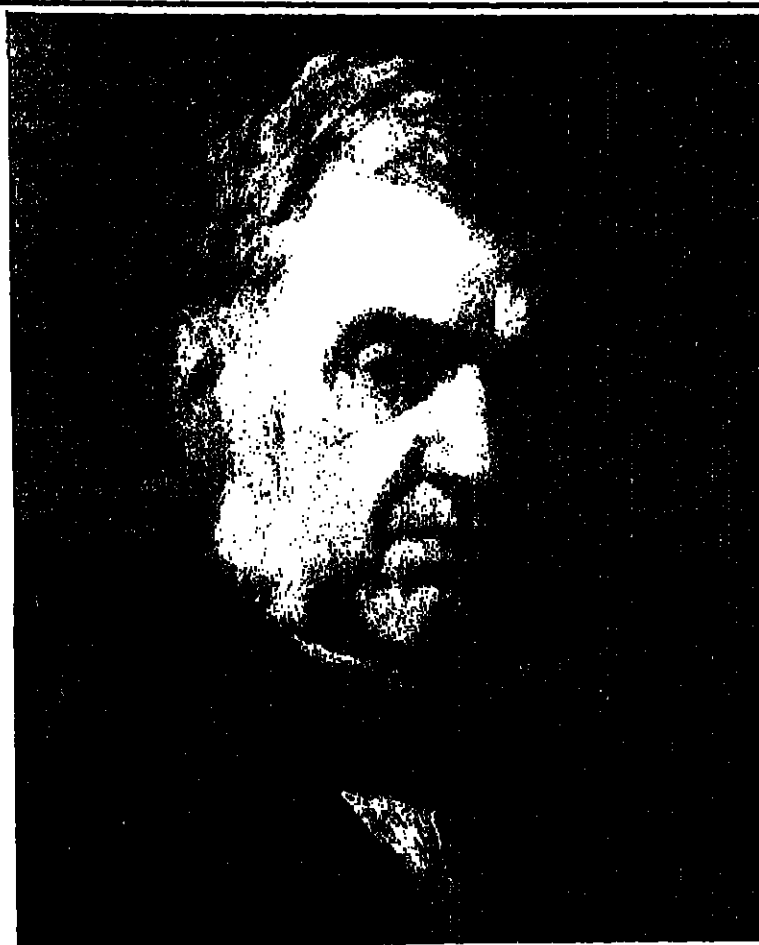
The old interleaved printed British Museum catalogue had become very difficult to use through a surfeit of additions and many inaccuracies. In 1834 Baber, then Keeper of Printed Books, submitted a proposal to the trustees, compiled with Panizzi's help, for a new strictly alphabetical author catalogue, which he wanted Panizzi to direct. The suggestions for the compilation of the catalogue formed, developed and expanded, the basis for Panizzi's famous 19 rules, which in turn became the foundation for cataloguing in the department for well over a century. Baber's plans had to be modified and Panizzi became one of the assistants working on the new catalogue. Work was well under way, when in July 1835 it was interrupted as the staff prepared to face a Select Committee to enquire into the "Conditions, Management and Affairs of the British Museum", appointed by the House of Commons in response to attacks by radicals who saw the museum as a place run by amateurs, providing easy sinecures for elderly clergymen.

A second Committee, set up a year

"I want a poor student to have the same means of indulging his learned curiosity... as the richest man in the kingdom"

later, had the task of investigating the state of the library. In preparation for this Panizzi went round the principal libraries of Europe, excluding those in Italy and the Austrian Empire where it was still too dangerous for him to travel. In June 1836 the staff of the Department of Printed Books gave evidence before the Select Committee. Panizzi began by comparing, unfavourably, the British Museum library which those he had visited abroad: he derided the inadequate Government support for the museum, and spoke of his desire for more public libraries.

Then came the famous words, often quoted which inspired the foundation of the Sir Anthony Panizzi lectures: "I want a poor student to have the same means of indulging his learned curiosity, of following his rational pursuits, of consulting the same authorities, of fathoming the most intricate inquiry as the richest man in the kingdom, as far as books go, and I contend that the Government is bound to give him the most liberal and unlimited assistance in this respect." In exchange grants for older generations had to be forthcoming; additional grants for modern books were needed; the science departments would have to go to make the museum's collections more homogeneous; more space would have to be found; and an alphabetical author catalogue was essential. Panizzi saw the purpose of the museum as "an establishment for the furtherance of education for study and research." He



devoted his life to making it so.

In 1837 Baber retired and Panizzi, not without struggle, succeeded him as Keeper. Of imperious character, ambitious, hard-working, fair minded and liberal, but often irascible and no sufferer of fools, Panizzi inspired devoted friendship but equally bitter hatred among his staff and colleagues. None more generous or loyal to a friend, but at the same time, none more ruthless to a foe.

One of the first tasks for the new Keeper was the move of books from Montagu House to Sir Robert Smirke's new building. Lack of staff was among the main problems. Reforms in the reading room included the provision of printed application forms for books, making the readers responsible for handling in their own books, and the introduction of a more elaborate system of press marking. Complaints from the more traditionally-minded readers, bickering with colleagues, difficulties with staff, and especially the trustees' indifference, harassed the first decade of his Keepership. Panizzi favoured an alphabetical author catalogue in manuscript which could easily be kept up to date. He also advocated a supplementary subject index and printed catalogues for special collections. The trustees wanted a printed general catalogue and they wanted it quickly. Panizzi who drew up new cataloguing rules and who did much of the necessary revising himself, considered the trustees' demands impossible to fulfil and insisted that a rushed job would inevitably result in a bad catalogue. After a long drawn out wrangle he at last succeeded in getting the trustees to agree to his point of view.

Panizzi had two main objects: to build up the library and to make it the greatest and most representative collection on earth, and to make the collection as readily available to books speedily and readily available to all readers. For the first aim he needed increased government grants, strict enforcement of the Copyright Act and active agents throughout Europe; for the second, more and better staff, proper catalogues, and adequate accommodation for the books.

Not without difficulties he gradually obtained more staff. Greatly increased parliamentary grants exacerbated the problem of insufficient space for new acquisitions. During his Keepership Panizzi laid the foundation of the library's supplementary collections of rare books, newspapers and official publications; he acquired the ephemeral collections of his own time; his agents scoured Europe and the United States; and most of all he directed his efforts to the acquisition of antiquarian material. In 1845 he managed to get the Treasury to agree to an annual purchase grant of £10,000, and it was largely due to his friendship for Panizzi that Thomas Grenville left his magnificent collection of rare books and manuscripts to the museum. Grenville died in December 1846 and early the following year the books arrived in Bloomsbury. Housing them was a major problem.

By May 1857 the building was completed and officially opened with a grand breakfast eaten off the catalogue desks. While the reading room was being

"The museum is the library of the English nation and there ought to be in that library every book... either by Englishmen or in English"

other, and blamed these abuses on the lack of a "more prompt and vigorous system of management".

Panizzi, now fully vindicated and at the height of his powers turned his mind to the enforcement of the Copyright Act. His energetic prosecution of offending publishers, though it loosened a storm of abuse, was successful and the number of books deposited by copyright increased by thousands. Lack of space was an ever more pressing problem. Most reluctantly, Panizzi had been compelled to ask for a reduction in the annual purchase grant.

Several suggestions had been made for using the empty space of the inner courtyard and in 1852 Panizzi conceived the scheme, elaborated with the help of Sydney Smirke, the museum's architect, of the new domed reading room. The Treasury refused the money. In March 1853 most book purchasing was indefinitely suspended for want of space to place the books. After much pressure, first the trustees and then the Government agreed to Panizzi's plan and early in 1854 the Treasury approved the expenditure. A remarkable document dated October 1854, listing the points of discussion regarding the construction, layout and arrangement of the new reading room, confirms Panizzi's close involvement from the start with every detail.

By May 1857 the building was completed and officially opened with a grand breakfast eaten off the catalogue desks. While the reading room was being

constructed, Sir Henry Ellis, Principal Librarian since 1827, whose health had long been failing, retired at the age of 78 early in 1856. Panizzi's powerful friends' active lobbying as well as his own undeniable merits secured him the office. John Winter Jones became Keeper of Printed Books; the over-large Antiquities Department was split into three; and the scientific departments were given a new superintendent. Internally this was a period of comparative calm, outside controversy continued to rage. By the early 1850s it had become abundantly clear that the museum was too small to house the ever-increasing flood of acquisitions. It took the trustees a further 10 years to agree in principle to the purchase of land at South Kensington for the erection of a new Natural History Museum. Active lobbying by disgruntled scientists called to life another Select Committee of the House of Commons to study the whole question of accommodation at the museum. In his evidence Panizzi made his opinion clear: the scientific departments had to go, for their own sake as well as for that of the classical departments. It was on this occasion that he voiced again his ideas of a national library. "The museum is the library of the English nation and there ought to be in that library every book that was printed either by Englishmen or in English or relating to England."

Though both the Principal Librarian and the Superintendent of the Natural History Departments strongly urged the separation of the collections, the Select Committee was not convinced. A Bill to authorize the eventual removal of the natural history collection to South Kensington was rejected by the House in 1862 and it was not until 1863, long after Panizzi's retirement and death, that the change was made. Another problem that occupied Panizzi's mind and time was how to ensure adequate salaries and pensions for his staff. An investigation carried out by experts from the Treasury led to the application of ordinary Civil Service regulations and gradually the conditions for staff of all levels improved.

Though a naturalized Englishman since 1832, with a strong love for and pride in his adopted country, Panizzi never lost interest in Italy's struggle for freedom and unity. Gladstone, a warm and devoted friend and later a trustee of the museum, having been appalled at what he had witnessed of the treatment of political prisoners in Naples, had written and published his famous letters to Lord Aberdeen. Panizzi went to judge for himself. The situation was even worse than he expected and he tried everything in his power to alleviate the prisoners' suffering. He brought his influence to bear on his powerful Whig friends and on the newly proclaimed Emperor Napoleon III, to whom his friendship with Prosper Mérimée had granted him access; he even embarked on a wild and in the end abortive plan to rescue a few of the prisoners by ship. All through his life in England Panizzi tried to influence public opinion in favour of the cause of Italian freedom.

The struggles at the British Museum, his ceaseless devotion to work, the abuse still levelled at him by the gutter press, all combined to undermine his stamina and health. He suffered more and more from gout and rheumatism and in 1865 he wrote to Gladstone telling him of his intention to give up the Principal Librarianship. He formally tendered his resignation in June. The Treasury refused the trustees' recommendation of a handsome pension and the Home Secretary, while accepting his resignation, requested him to stay on until early in the following year. In October he moved out of the museum to a house in Bloomsbury Square and on June 26 of the following year Winter Jones was appointed his successor and Panizzi was at last free to go.

Though his life had been devoted to his beloved museum, Panizzi had been fond of social life. He appreciated the pleasures of the table and delighted in the company of friends. Now in his last years, increasingly racked by pain, his eyesight failing, increasingly ill-humoured, he was still frequently visited by devoted friends like Gladstone, who even managed to persuade him to accept a KCB, and by Louis Fagan, his later biographer, who looked after him like a son and in whose arms he died on April 8 1879. He was buried in St Mary's Roman Catholic cemetery at Kensal Green.

The author is assistant keeper in the Department of rare books at the British Library and secretary of the Panizzi Trust.

Brian Bloomfield explores the strange and mysterious world of particle physics

Looking for a fundamental

In various parts of the world there are several programmes in high-energy particle physics seeking to discover fundamental particles — quarks etc — the basic building blocks of matter. How should these activities be viewed? Who assesses them? Are they worthwhile? And how does the cost of these programmes stand in relation to their stated goals?

Could it be that the search for fundamental particles is rather like a substitute for God — a secular search for a final cause or an unmovable mover? Is it all a matter of belief rather than science, or does not science rest on conventional systems of accepted beliefs anyway? I would like to argue that the existence or discovery of fundamental particles rests as much on accepted beliefs as it does on nature, and that rival programmes in high-energy physics conflict and sustain disparate accounts of experience.

Although most discussions on particle physics take place on the physicist's own terms, there are other ways of looking at the subject. These can lead to very different inferences when compared to the one usually drawn in both academic and popular journals — ie that "final" knowledge lies just ahead, around the corner. But an alternative framework is that adopted in sociological and anthropological studies of scientific knowledge, where any attempt to claim that the fundamental building blocks of the universe have really been found. This research focuses on the conventional character of scientific knowledge and on the way in which conflicting belief systems have jockeyed for dominance within the history of the development of science. This is true enough for social science. But could it be that particle physics really is no different?

For crudely, sociologists of science argue that all reality is a social construction, by which they mean that the world "out there" is only knowable through the system of knowledge which we construct to describe it. It is mediated by our theories and is not directly observed. For another way, theory depends upon data, but data, too, are theory-laden. Further, scientific knowledge is not logically determined — it is not merely a set of logical statements; rather, it requires an irreducible element of judgment. Reasons for the choice of any particular theory are not so much logical as social — they reside in the arguments, conventions and decisions of people. By this line of reasoning, then, the laws of physics are not complete *in themselves* but rather are social institutions.

And yet a simple economic or political analysis of social factors in scientific knowledge is hardly

wick Fleck's argument concerning atomic weights. In a fascinating book written in the 1930s — entitled *The Genesis and Development of a Scientific Fact* — Fleck gave a sociological account of the development of the concept of synthesis. In order to illustrate the social character of knowledge, Fleck noted that our rather arbitrary choice of the atomic weight of oxygen (16) thereby fixed that of hydrogen (1) (oxygen is 16, hydrogen must be 1.008) — the scale of atomic weights thus rests on a social convention, but nature imposes constraints in respect of the particular ratios between the atomic weights of given elements. In other words, the choice of a scale for atomic weights constitutes an "active" connection set up by scientists, while nature itself imposes "passive" constraints on those connections.

Moreover the nature of discovery is not entirely straightforward either: the benefit of hindsight shows us that it is scientists as a social group rather than "nature" which decides to call a particular event a "discovery". Discovery, in other words, is a status conferred or negotiated by a social group rather than an accolade awarded by nature. Further, different groups sometimes sustain different accounts of discovery — competing groups proposing disparate knowledge claims. (A fine example of this occurred in relation to the discovery of Neptune. In Europe, Adams and Leverrier were credited with its discovery, but in the United States an American astronomer — Peirce — contested it. Indeed, even today there is a fair degree of rivalry between the American and European high-energy physics communities.)

Recently, alternative explanations have been put forward to account for the results of the experiments surrounding the discovery of the W particle. In this respect high-energy physics is in a particularly peculiar position because independent, conservative, reputable — one of the hallmarks of a scientific method — is very difficult to achieve given the cost of particle accelerators and the staff needed to run them.

Although one might be forgiven for thinking otherwise, the results of an experiment — perhaps sometimes considered to be a crucial one — cannot corroborate a theory as being true. (Indeed, this is not just a sociological view, but is also held by Popper. Experiments disprove a theory, they only point to alternative explanations, and

choosing between rival accounts depends on judgment, not in the sense of expertise, but social negotiation rather than logic or rationality. Even a choice based on the idea that the simplest hypothesis is best is a social one: we decide to make it rather than it being forced on us by logic.

The anthropologist Mary Douglas has argued that there are many possible ways of describing the universe — witness the bizarre variety in the ethnographic record. Many so-called "primitive" peoples inhabit what for us appear to be magical worlds. Yet to the outsider, the world of high-energy physics appears to be no less fanciful — charm, strangeness, gluons, quarks etc, populate and characterize this mysterious realm. But these are only labels; a deeper correspondence between the worlds of the primitive and the particle physicist lies in the search for order and pattern, the search to refer all motion back to something unmovable, to find basic properties and fundamental units. From an anthropological point of view then, what is thought to be "fundamental" must rest on a social convention; it must be rooted in only one of innumerable potential systems of thought — any one of which might claim to have discovered ever more fundamental building blocks.

From this perspective the path to the frontier of knowledge, seemingly being blazed by high-energy physics is one whose goals are set by the community of physicists themselves. It resides in the very framework within which they work, and the particles it posits cannot be expected to correspond in any final sense to real divisions within nature. Thus according to sociologists of science, fundamental particles are *our* constructions, not *nature's*. And even if they were, even if we wouldn't know it because there was such knowledge would require that we step outside of the very paradigm in which the particles take on meaning, and pretty soon would have an infinite regression on our hands.

The sociological view of science thus implies that whatever the physicists discover there will be nothing absolutely "fundamental" about it. It may, of course, be interesting, fascinating, beautiful, or whatever, but these are essentially socially rooted considerations.

It is a sobering up: another question, for it is, given the above, that those who assess

the results of high-energy physics are the physicists themselves. And the people who advocate funding such esoteric research may often be other physicists or government bodies seeking to boost national pride. The cost at present is minor compared to that spent on, say, defence research, but at the very least may represent a waste of highly trained people. Although the current cost is comparatively small in relation to defence expenditure, it is of course huge in comparison to other much neglected areas of research (eg alternative sources of energy). Moreover because each step forward appears to require higher and higher energies — and therefore bigger and bigger accelerators — the eventual cost, given a possibly innumerable series of steps, will probably continue to increase.

The sociological view of high-energy physics will probably be resisted by the physicist, but sociologists of science may well resist that resistance stems from the desire to protect professional interests, careers, prestige, and their exalted position within the hierarchy of science, as much as it does from the knowledge itself they may describe to.

At a deeper level sociologists would want to consider why such negative reactions may occur. What is it that irks the physicists so? What is at stake? What hallowed ground are we violating? One possible answer is that our questions are against the grain of much received wisdom — they challenge people's sense of propriety. Order, in its various guises, is a social construct and, as such, is a social construct. It is a social construct that the physicist's training, he or she tends to think that objective knowledge lies ahead — that the ultimate mystery of the subject will be revealed as they ascend the educational ladder. However, these things are a matter of belief and are part of our culture; they are not necessarily having anything to do with nature in itself.

Each age considers that the final answers are just around the corner; in other words we manifest a degree of arrogance about how much it knows in relation to what there may possibly be to know. Witness the classical physicist who thought that the universe was rather like a giant clockwork — the structure had been erected and only a few pieces needed to be added in as they were. Relativity and quantum mechanics changed all that so why should we now be in any qualitatively better position? Can we really believe that the fundamental is that much nearer to our grasp than it was 100 years ago?

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BOOKS

Always mirrors of the age

by A. H. Halsey

The Crisis in the University
by Peter Scott
Croom Helm, £16.95 and £8.95
ISBN 0 7099 3303 7 and 3310 X

"Of course another Robbins is impossible". This flat assertion from Peter Scott, editor of *THE THES*, is based on a long historical view. Professor Robin Marris has since argued exactly to the contrary (*THE THES*, April 6, 1984): "the economic return to the nation from university education is so high, that there is in fact an overwhelming case for a new massive expansion, for, in effect a 'new Robbins'". Marris arrives at his conclusion by strictly economic calculation. Scott, apart from anticipatory criticism of the basis of such arithmetic ("if higher education acts in the labour market mainly as a sieve, its value to individual graduates is bound to decline as the production of graduates increases"), devotes much more print to the social and political forces which shape opinion and decision in senior common rooms, board rooms, and Cabinet offices.

To this end he presents a summary recapitulation of the liberal and modern phases of the history of British higher education, attempting to distil their cultural essence as traditions which mould present thought and future possibilities. This is not to say that his sympathies (or mine) are opposed to the general thrust of Marris's advocacy, but that Scott recognizes the power of inherited ideology; and in this sense the book belongs to the large literature on "the idea of the university" which has accumulated since Cardinal Newman began his *Discourses on University Education* in 1851. Scott's interpretation of institutional history is also, in effect, a review and reflection of the ideas of Newman, Mark Pattison, Benjamin Jowett, Thorstein Veblen, Albert Mansbridge, "Trusler" (and more explicitly) Sir Lionel Robbins and Clark Kerr.

From this long lineage of predecessors, I would pick out Sir Walter Moberly as the most apt for comparison. To do so is at once to throw light on the dubious use of the word "crisis" in the title: for Moberly's title in 1949, was *The Crisis in the University*. Perhaps the tiny difference of a preposition signals a change in the thirty-five years on the "public" rather than the "private" lives of universities. Certainly Scott is more aware than was Moberly of the wider intellectual culture and of the existence of what came to be recognized as the binary line and a system of higher and further education as well as a "knowledge industry", with which universities have manifold relationships.

But crisis is the conceptual continuity, and the definition of it has not changed. Neither author describes crisis in terms of resources. Moberly was Chairman of the University Grants Committee in the early postwar years and steered its movement along an exponential curve of state patronage while he wrote, Treasury finance to the universities was being quadrupled. Scott, by contrast, has watched and recorded the use of the UGC, the National Advisory Body, and the re-

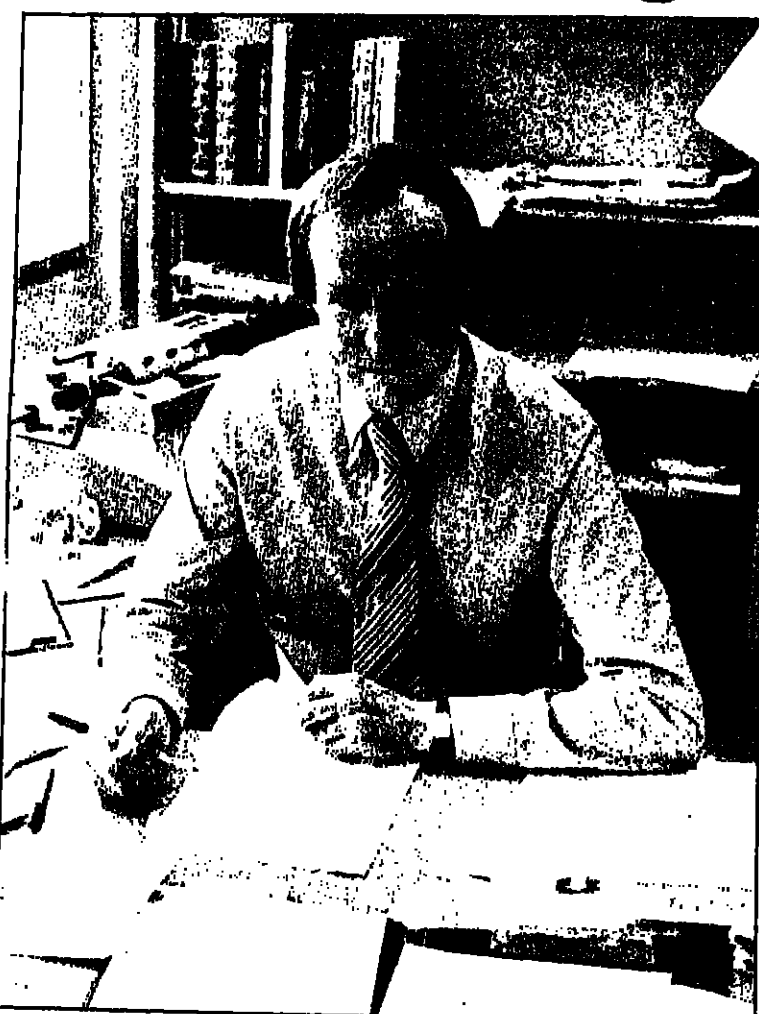
search councils as agents of a governmental drive towards reduced public expenditure on higher education. Yet neither sees the economics of higher learning as crucial.

For Moberly the crisis was spiritual. He argued that the universities reflected "the crisis in the world and its pervading sense of insecurity". All over the world, indeed, the cake of custom is broken, the old gods are dethroned, and none have taken their place. Beneath the facade of development and hopefulness, the British universities today share with the universities of the world a peculiar malaise of impotence. They have little inner self-confidence, because they lack, and are increasingly aware that they lack, any clear, agreed sense of direction or purpose. Compare Scott who writes: "There can be little doubt that there has been a decisive shift towards pessimism in Britain since the early 1970s and higher education has shared in this mood and been a victim of it." The different branches of knowledge find it increasingly difficult to regard the modern university as in any sense an organic academic society rather than simply as a shared bureaucratic environment.

Scott could even be held to speak for his pre-Robbins predecessor when he ends his book with the fear that higher education, and the values it embodies, may be condemned to "marginality and erosion" and the demise of "that configuration of belief and practice, typical of modern society, and the metaphor of a moral social order that is a guarantee of both freedom and progress".

The question and the crisis are, then, much the same. So, too, are the essential conceptions of "ideal types" inherited from the past - the traditional (what Moberly calls Graeco-Roman), the liberal, and the modern (Moberly's "technological-democratic"). Both writers locate the liberal university in the period from the revival led by the eighteenth-century Scottish universities up to the first half of the twentieth century - roughly from David Hume to Ernest Rutherford. In the three preceding centuries European intellectual life had passed out of the post-medieval university, which slept through the Renaissance, the rise of the Royal Society, and the spread of the Enlightenment. The liberal university was then awakened by the rise of natural and political science. Rationality was, and still is, the value which a university embodies. Reason is the timeless principle of the idea and organization of any university and sets the problem for Scott or any other interpreter of the fate of universities. But universities are also always mirrors of the age. In the case of the age of classical industrialism, Scott argues that there are identifiable social and economic forces which gave the liberal university particular character as the custodian of an intellectual tradition "derived from the culture of an elite and the codification of scientific principles by a corps of academic experts".

These two elements of tradition and pedagogy are our inheritance from the liberal university. They were exemplified in Edwardian Oxford and Cambridge, they modified and contained the "redbrick" universities which developed in the great provincial cities



Peter Scott

from the end of the nineteenth century, and they continued to shape the self-conceptions of the new universities of the 1960s. But a new conception - the modern university - is thought of by Scott as based on an emerging redefinition of knowledge as product rather than process. A scientific rather than a cultural definition of knowledge emphasizes research more than teaching, intellect more than sensibility. A reconstruction of intellectual life displaces humanism by academicism: technology replaces education. The university is more fissiparous, less integrated, more eager to respond to external influences, less separate from the mainstream of profane life, and therefore more serviceable as well as more pliant to the power of the state. While central to society as the generator of new scientific knowledge as well as the distributor of occupational chances (at least to the more remunerated, more esteemed, and more powerful echelons of a modern division of labour), the university is also, by the same process, less independent of government and the pressures of industry.

What, then, are the responses to an essentially common diagnosis by these two authorities of the 1940s and the 1980s? Moberly's interest and purpose was to restore, in modernized and viable form, the traditional principles which had guided the traditional European universities before liberal ideas made the German universities such triumphant leaders in the development of higher learning for advanced indus-

trial societies. He was at one with Jowett and the Victorian reformist churchmen whose naive optimism actually welcomed liberalism as a potential emancipation of the Christian university from parochial narrowness and indefensible interference with free inquiry. He was almost as sanguine as his predecessors in taking for granted the capacity of a moral outlook to survive without institutional power. He even echoed the fashionable talk of the early postwar days about Britain's future in the world as a moral force which might be strengthened by loss of empire.

Moberly looked back and sought to incorporate the liberal conception into a modernized and rejuvenated Christianity for the universities, rid of its ancient guilt over the *odium theologicum* and any attempt to shackle free inquiry by dogmatic orthodoxy. Against the modern hope for progress through pragmatic and positivist science, he could only protest that the fundamental aim of the university could never be fulfilled by intellectual gadgetry.

Scott is less sanguine, more sophisticated, and much more forward looking. He looks for a moral outlook in secular institutions and the search leads him to a perspicacious discussion of the nature and organization of intellectual inquiry and its disciplines, the differences and similarities of "cultural" and "scientific" definitions of knowledge, and the social ethics of access to higher education. If he does not find any simple solution to the

threat of academicism and instrumentalism or any guarantee for the preservation of "cognitive rationality" and social justice in the future organization of higher education, at least he places these problems coherently and practically into the context of contemporary debate. His cautious canvassing of the strategy of a post-binary policy for higher education, including the universities, and designed to balance the need for diversity, efficiency, accountability, and freedom makes up a short but lucid chapter which deserves and facilitates wide consideration.

Scott's advance on Moberly can, finally, be described by reference to the analysis of the state of the British universities by Martin Trow and me at the end of the 1960s (*The British Academics*, 1971). In our attempt to make sense of academic opinion in the aftermath of Robbins, we took two attitudes to be crucial - first towards the role of the university in society and, second, towards the role played by academic persons within the university. The first dimension roughly divided academic opinion between elitist and expansionist views of the function of higher education: the second cross-divided the outlook of the senior common room by leanings towards either teaching or research. We thus have four basic ideas of the university.

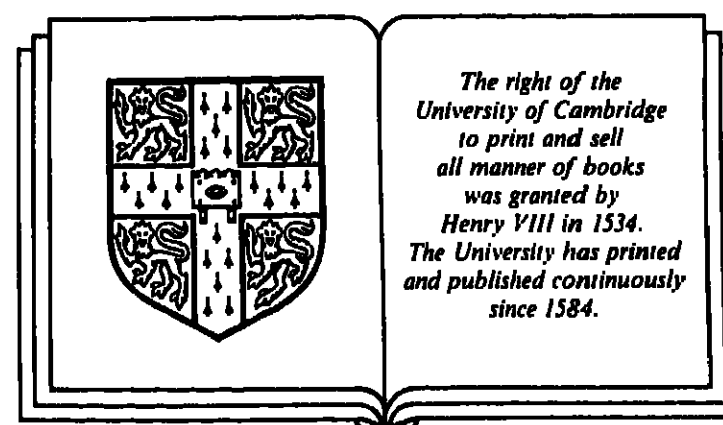
Moberly's imagination was confined to the first two conceptions - those of the elitist teacher and the elitist researcher. Looking back in admiration to Newman's *Idea of a University* and the conception also shared by Jowett in Oxford and William Whewell in Cambridge, he wrote: "on this view the chief duty of the university is to produce good citizens. It should train an elite who are to be the future leaders in affairs and in the learned professions." He also appreciated the force of the idea that universities might be devoted to investigation more than instruction but again insisted that the university as a community of science and learning must concern itself with "intellectual aristocracy". Scott's horizons are broader. They encompass the expansionist-teacher and the elitist-researcher, and accordingly he addresses himself to the whole range of educational institutions beyond school. He wrestles with the problem of finding a place for all four views concerning the development and transmission of knowledge in an integrated system of higher education in Britain. The outcome is his post-binary policy.

For these reasons I anticipate that Scott's contribution will stay in the literature and inform future debate, whereas Moberly's book was but briefly remarked and quickly forgotten. And yet their common "crisis" remains. A misnomer, perhaps, for a chronic peril, it may never be finally resolvable. For intellectual life however serviceable to material production or civilized consumption will always demand its freedoms and its privileges and must therefore work on moral principles which reconcile themselves to the populace and the power.

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Schooling in context

Fourteen to Eighteen: the changing pattern of schooling in Scotland
edited by David Raffe
Aberdeen University Press, £7.90
ISBN 0 08 033749 9

For the second year in succession members of the Centre for Educational Sociology at Edinburgh University have produced a book of great importance which will repay intensive study. Not that such study will be easy, since Raffe and his colleagues (like the authors of *Reconstructions*, last year's major publication) do not hesitate to

develop and deploy a range of difficult concepts in their analyses of data from the 1981 Scottish School-leavers Survey and in their discussions of recent policy initiatives (the implementation of Munn and Dunning proposals; the Scottish Action Plan for 16 to 18-year-old students; the fate of the Youth Opportunities Programme; and the Youth Training Scheme; pressure for co-ordinated post-school provision; and the subterranean debate on "education" versus "training").

Whereas *Reconstructions* concentrated on the related problems of difficulty, selection and motivation in analysing secondary schooling, this new collection of essays focuses on the content of schooling (the inherent educational value); the wider context of schooling, which is "constituted by the structure of selection and differentiation within the educational system and by its relation to differentiation within

the labour market and within society as a whole"; and young people's individual choice as a mediating mechanism between the first two.

The message of the book is that such choices are largely determined by contextual considerations (principally vocational ones), that content is much less influential, and that this has profound implications for the success or failure of proposed policy changes.

The contributors deal with various aspects of the schooling of 14 to 18-year-olds in the light of this analysis. Penelope Weston's chapters discuss the last two years of compulsory schooling, emphasizing differentiation (of courses, pupils and subjects) as the main contextual factors at this stage, and posing three hypothetical school populations of pupils ("the essence of C-grade", "General-ness and Ponderation", "a puzzling description") as an exploratory device for the assess-

ment of the likely impact of the recent policy initiatives mentioned above. Peter Burnhill's two chapters discuss the continuing anomalies arising from the age/stage mismatch at the end of compulsory schooling and he discusses, in his investigation of staying-on rates, that the vaunted high Scottish figures are probably illusory.

Andrew McPherson's chapters deal with the Scottish fifth and sixth years as a problematic area in which the conflict between a dominant academic tradition and quasi-egalitarian notions of a general education for all seems to be resolved in favour of the former, thus constituting a severe difficulty for a Scottish Education Department faced with encroachment by the Manpower Services Commission. Such encroachment, the facts from which it creates, and the odd contradictions it creates, are the main themes of David Raffe's chapters on YOP, YTS and the

labour market context; thus, for example, it seems that (in Scotland at any rate) staying on at school beyond O-grade may actually decrease a boy's chances of a job.

Raffe also contributes a good summary of recent developments in the introductory chapter, and a thoughtful, provoking concluding one. Indeed, readers might well set about mastering this difficult book by absorbing these first before struggling with the middle chapters. But that they ought to attempt such mastery is beyond doubt: the book has great value on its own but, together with *Reconstructions*, it constitutes a major advance in the analysis of Scottish (and British) secondary schooling.

H. M. Paterson

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كتاب

BOOKS

A great disorder

Reformation and Revolution
1558-1660
by Robert Ashton
Granada, £18.00
ISBN 0 246 10666 2

From the jacket of Robert Ashton's *Reformation and Revolution* peer suitably similar likenesses of Elizabeth I and Oliver Cromwell. They stand unconvincingly erect, heads defiantly thrust forward, grim expressions drawn from seemingly inexhaustible sources of mirthlessness. Both pallid faces are offset by hard jaws, tight lips and glossy eyes. Perhaps they, too, have just finished reading this latest volume in the Palatin History of England.

In it they would certainly find much cause for worry. In the early modern period, England was like a third world country with a labour-intensive, capital-deficient, underdeveloped economy. Against a backdrop of falling wages and chronic underemployment, population was rising. The bulk of both rural and urban inhabitants experienced an inadequate diet, insufficient shelter, and a susceptibility to disease that rendered famine superfluous. If life was nasty and brutish, at least it was short.

Into this inheritance came the last of the Tudors. The Elizabethan settlement was now the achievement by which she is primarily remembered by historians. It was an amalgam of religious, political, and social legislation designed to stem the tide of problems that beset the nation at her accession. Ashton shows it to have been less than a finger in the dike. No sooner were ill-conceived and badly planned reforms pushed into the breach of one or other of the gaping threats to order and stability, than new troubles flowed out elsewhere. There were external dangers from religious fundamentalists (Catholics) and the competition of the superpowers (Spain and France); internal challenges from puritans, papists, and peddled malcontents; and always the inexorable advance of population and prices. How Elizabeth must have wished that she had succumbed to smallpox in 1562! The end of the reign was "a time of economic

crisis... political disintegration, declining political morality and burgeoning corruption".

To the lustre of this golden age soon came the tarnish of the Stuarts. If Ashton has little to say about the character of James I, he leaves no doubt about the tenor of a reign dominated by favourites and factions. Pork barrel politicians, elbowed greedy Scots for a chance to feed at the public trough which, unremarkably, was perpetually in need of replenishment. Disputes within the Privy Council wrecked Parliament after Parliament, leaving the king with neither funds nor legislation. To the crises of his predecessor, James I added insolvency, and his grizzled son insolence toward the political classes who were expected to pay, in both money and service, for past and present extravagance. The price that the gentry extracted was a bigger share of the spoils, a seat "aboard the bandwagon of Personal Government".

The Civil War and Revolution was not the result of the seizure of the reins of this wagon for a gallop along a different path. Rather it followed from the collapse of wheels and axles and the exhaustion of horses and drivers. If anything, the revolutionary period was less edifying than the monarchical rule that it replaced. When the parliamentarians were not fighting inconclusive battles or endless wars, they were squabbling among themselves for position and power. Drab politicians were succeeded by colourless swordsmen. The Cromwellian regime faced the same complex of problems with the same threadbare solutions and without even the legitimacy of the past to clothe its nakedness. It was not the origins of the English Revolution, but its failure that was inevitable.

Though the story that it presents is dispiriting, *Reformation and Revolution* tells it with clarity and precision. Ashton uses recent literature to modify outworn generalizations; he treats the reader to fresh material from his unrivalled knowledge of the history of London; and he dispels the murky complexities of economic and financial affairs. This is a textbook well suited to the decline-of-Britain generation. It contains no heroes, no anti-heroes; no romantics, no rogues. Against the forces of catastrophe and confusion, uninspired little people labour with resignation at their Sisyphean tasks. They fall with neither a bang nor a whimper.

Mark Kishlansky

Mark Kishlansky is associate professor of history at the University of Chicago.

Breaches of the peace

Rebellion, Popular Protest and the Social Order in Early Modern England
edited by Paul Slack
Cambridge University Press, £19.50
ISBN 0 521 52036 8

Arguably no journal has done more to enliven historical studies in this country during the last quarter of a century than *Past and Present*. Among the plethora of themes and new approaches which it has considered, popular protest stands out as one of the most conspicuous, and articles on that subject by E. P. Thompson ("The Moral Economy of the English Crowd") and Natalie Davis ("The Rites of Violence") are now regarded as classics of their kind. Here in this volume — minus those classics — we have a further collection of 14 articles from *Past and Present*, the earliest published in 1968, nine of them in the 1970s, and four since 1980. It could hardly be claimed, therefore, that the material is inaccessible in its original form. None the less there is a certain utility in having them all conveniently together and the editor provides a neat introduction which places the disparate contributions within a common framework.

Given the enormous range of subject matter and variety of methodology this editorial task is more than usually necessary. At the most obvious level the range here is chronological, extending from the 1530s to the middle of the eighteenth century. But variations

in the character and scale of the protests and disturbances are equally striking. The book begins with the massive and widespread expression of discontent embodied in the Pilgrimage of Grace and concludes at the other end of the spectrum with a microscopic investigation of tensions and troubles within a single Gloucestershire village in the late seventeenth and early eighteenth centuries. Between these extremes of scale there is a fascinating miscellany of chapters on Civil War army mutinies and assertions of neutrality, on grain and enclosure riots, outbreaks of iconoclasm, anti-clericalism, and anti-Catholicism, and the whole popular theatre of rituals, assumptions, beliefs, and attitudes.

That many of the points made are by now familiar to students of this period is partly a tribute to the influence of the journal in which these essays first appeared. Thus we are reminded at various times of the orderliness and discrimination of popular protest; of its traditional and conservative values, and of the eventual politicization of its traditional and conservative values. The respective roles of artisans and peasants are considered and some attention given to the part played by women. The complex connection between death and the maintenance of social stability is assessed in a (by now) well-known article by John Walton and Keith Wrightson. London figures prominently in these pages, and not least in the incisive and superbly written "evocation" of the Sack of London by Geoffrey Holmes. Here, within the compass of a single case study, telling points are made about the socially respectable character of the disturbances and about the restrained and highly organized way in which the rioters proceeded.

The Sack of London was not an indiscriminate riot. They had specific targets in mind, and they were warned to their work in advance.

View from the bottom

The Common People: a history from the Norman Conquest to the present
by J. F. C. Harrison
Croom Helm, £12.95 and £12.95
ISBN 0 7909 1811 9 and 00 654040 1

In North America and in Europe, social history is largely social scientific history; that is, it consists of the work of scholars who borrow concepts and methods from the social sciences to organize evidence about the past.

Whether in the pages of the *Journal of Interdisciplinary History* or *American Social History* appears as a highly technical discipline, in which the historian must master the skills of the quantifier and the social scientist on top of his familiarity with traditional historical sources. With the exception of historical demography, social history in Britain traditionally has been primarily either the history of manners or the history of the working class.

In one form, that developed by Raphael Samuel and the Ruskin Col-

lege collective, it is the history of the manners of the working class, that is to say, their working lives and the texture of their daily existence. This is certainly an advance on the older style of social history which equated the working class with the working-class movement, and which highlighted political and intellectual history to the virtual exclusion of economic history. But it still leaves social history as a sprawling unstructured discipline, whose motto is "Let one hundred flowers bloom".

J. F. C. Harrison's *The Common People* is very much in the tradition of social history as the repository of "the voice of the people". His "primary concern", he tells us, "is with the experience of the people themselves rather than with the historian's broad assessment of what happened". Consequently, he provides abundant and extensive references from contemporary documents, which are what makes history "interesting" to many non-academic readers. All this is to the good, and Harrison's voice is that of a congenial and knowledgeable companion on a walking tour of British history. On subjects on which he is a specialist, such as eighteenth and nineteenth-century popular culture, this book provides the best survey available for those investigating the

field for the first time. Even in areas remote from acute, well-researched, and whole convincing. But it is still a while rather than an analytical history, family life, popular culture, working-class organization, source of information and there, than an interpretation of the past. Of course, given the demands of this work, it is not an argument, or an approach to a subject. But even Leopold's never really advocated letting all documents speak for themselves. Godly selection implies power, which in turn implies values, and appears in historical judgment. Perhaps a work of this kind, so tentative as this informative and gentle book will inspire a more move on to another kind of history, the kind practiced by Dickens, in "Other Com-

J. M. Winter

Dr Winter is a fellow of Peterhouse, Cambridge.

Limited challenges

Insurrection: the British experience 1795-1803

by Roger Wells
Alan Sutton, £16.00
ISBN 0 86299 019 X
Riots and Unruly Politics in England and Wales 1790-1810
by John Bohstedt
Harvard University Press, £25.25
ISBN 0 674 71210 6

Were forces gathering strength in Britain just under two hundred years ago which, following French example, might have carried the country into a revolution but for strong repressive action by the ruling class? This is a question which has for some time divided historians. E. P. Thompson has put forward what is perhaps an extreme view, that by 1812 the industrial unrest commonly described as Luddism had a real political significance, as a "quasi-insurrectionary movement which continually trembled on the edge of ulterior revolutionary objectives". Others disagree. The two books under review reflect to some extent these diverging interpretations.

Roger Wells's book is a valuable and interesting analysis, but its title is in some degree unrepresentative of its contents, for with the dubious exception of the naval mutinies of 1797 there was no actual British experience of insurrection in these years — although, as the author shows by careful and painstaking research, a number of individuals were actively engaged in trying to bring this about. Their efforts were vain because Britain was not at this time a nation divided against itself.

The only actual experience of insurrection in the British Isles was provided by the Irish rebellion of 1801, and the conditions and the motivations contributing to that event bore little relationship to the circumstances making for social discontent in Britain itself. That elements of such discontent existed is incontestable (and they were to become even more acute after 1810); but to regard them as verging on insurrection and revolution is a very different matter, and it is here that the corrective supplied by John Bohstedt's investigations is of particular value. He analyses some 600 disputes involving riots in England and Wales. Several different lines of investigation converge to indicate that these disputes arose over particular grievances, that they did not constitute a general challenge to the social and political system, and only in certain local instances were they becoming associated with the demands of the working classes. Nearly 40 per cent of these were food riots, mainly linked with the dearth of 1795 and 1800. Only 7 per cent were labour riots. Slightly under half of them were triggered by economic causes. About one in five were "military", many of them in resistance to increasing demands for service in the militia. Only one in ten had a political or ideological character.

In a chapter entitled "Devon's Class-

sical Food Riots", Bohstedt suggests that small towns in a rural area provided ideal arenas for the use of riot as a political process, a last means of which the poor, approaching escalating food prices, could redress for themselves and, to a extent, get this endorsed by the class. The social bonds and loyalties of such a form of society provided a springboard for the organization of riots. At the same time, the poor involved were not so remote from local society as to be unable to join to them with some success for the domination of their actions, and these did not become outright destructive of property. Such took place within a network of constraints which tended to limit the results satisfactory to most — except a small minority of food-grown middlemen. The evidence for Luddism as presented by Bohstedt seems to me to be instructive to have detailed study for another completely to confirm his findings. For the ultimate significance is that the riot was a fundamentally conservative phenomenon, far more likely to contribute to the preservation than to the destruction of the existing social system.

The degree of inter-class cooperation thus revealed, the recognition that the people above that disorder were out of genuine but limited grievance and their conviction that they could and ought to do something about it, by decreasing or condoning price rises, by ruling on minimum wages, by charitable provision and by additional help through the Poor Law, all go to confirm an impression derived from that suggested in the conclusion of Wells's book of a gentry class which controlled the situation around them. Possibly at present there is still too much generalization on the basis of only limited regional studies.

Works dealing with dramatic, clashing episodes such as riots, mutinies, or subversive plots, can lead the reader into overlooking the major underlying factors making for political and social stability such as wages and the British society at the end of the eighteenth century. Growing prosperity, trade union success, mutual aid by religious groups or secular friendly societies, a basic security through the Poor Law — all these helped to keep men from thinking of frontal assaults on the fundamental order of the established order. On this point Bohstedt is more on his guard than Wells.

Ian R. Christie

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World Revolutionary Leaders by Mustafa Rejai and Kay Phillips is a compilation of information about 71 leaders from 19 revolutionary movements of the 1960s and 1970s. The aim of the study is to continue the research begun in an earlier book *Leaders of Revolution* in investigating patterns of social characteristics and traits in the personalities' backgrounds, and also to compare the conditions, the provided revolutionary impact, and whether this monumental work, also

BOOKS

Not an alternative

Economics: an alternative text
by Guy Routh
Macmillan, £20.00 and £7.95
ISBN 0 333 35298 8 and 35300 5

Dr Routh's objective, in his own words, is "to show that there is an alternative worldview or paradigm in terms of which the puzzles of economic behaviour become more intelligible" — more intelligible, that is, than when approached with the economics currently taught in our universities, in which the obsession with quite extraordinary degrees of rationality and the model-building (and hence the wildly implausible assumptions necessary to force the world into the straitjackets of algebra) has led the subject into the arid wilderness of grotesque unreality. To understand economics, he argues, "we cannot do without the help of historians, anthropologists, sociologists, psychologists and the rest of the social scientists".

It is not exactly a new thought, but it has to be said that in this book it is pursued with panache, erudition and felicity of expression of quite extraordinary degree. The first three chapters take us from the first farming villages of 5000 BC, through the Stone Age and the Metal Age and right up to Sir Henry Bessemer at roughly the pace of an intercontinental ballistic missile. Then follow chapters dissecting entrepreneurs, workers, consumers, bankers and politicians, each finding — not surprisingly — that their behaviour is a great deal more complex than might appear from the pages of *Teach Yourself Economics*. Two final chapters reveal the truth about socialism and the third world. As a demonstration of encyclopaedic knowledge of an astounding range of subjects, and the ability to weld it into a continuous narrative, it is unquestionably a tour de force.

As "an alternative text", on the other hand, it is simply a non-starter. In the first place, the mixture of evidence and reliance on authority is frequently supplemented by empiricism of social causation, as to be laughable, thus casting doubt on the whole. What are we to think of an argument in which it is necessary to refer to the facts that the author owns an ancient Alfa-Romeo (page 174), that his typewriter is 14 years old (page 113), that Lord Grade's company produced *The Muppets* (page 107), or that Boodle's is the most popular club among directors of British insurance companies? There is a chaotic, almost manic, flavour in the whole presentation which does something less than a work of reference, by the sheer weight of its evidence? Dare one ask, in the face of the author's frequent mention of the fallacy of composition, whether the total is greater than the sum of its parts?

A basic division

A Financial History of Western Europe
by Charles P. Kindleberger
Allen & Unwin, £25.00
ISBN 0 04 332088 0

This is a most unusual book. At one level it is a work of reference, listing under appropriate headings most of the concepts, events and institutions of monetary and banking history in Europe beginning with the fifteenth century. At this level there are also four chronologies, a glossary and an enormous bibliography. There are few other living authorities who could have undertaken to write a one-man encyclopedia with such verve, and the author's well-known clipped, dogmatic style is ideally suited to this purpose. At the same time, the book is also a history. The first three parts, running up to the First World War and being divided by topic, are somewhat disjointed, but the last two parts, covering the interwar period and the years since the Second World War, offer long stretches of almost consecutive narrative.

Individual topics, including resurgences of theoretical constructs, which are of particular strength of the author, are generally lively, informative and, despite the printing errors, thoroughly readable. But the question remains whether this monumental work, also

tion which does something less than justice to the intrinsic merits of the case.

A second weakness is that the comparisons with orthodox economics — invariably unfavourable — represent it as simplistic to a degree which the author must know to be grossly misleading. It is simply not good enough to assert that "Bourgeois economic theory begins and ends with the dictum that firms will equate marginal costs with marginal revenue and thus qualify for the title 'maximizer'" — how students of intermediate micro theory must wish it were! Nor have I ever heard of a university teacher of economics who asserts that "The maximizing buyer is proof against malpractices... and so... the concern of government, to protect their citizens was misdirected." Dr Routh's strictures against contemporary economics are frequently well-merited: indeed he deserves a Nobel prize for the phrase "statistics subjected to econometric torture until they admit to effects of which they are innocent". But spears are wasted when launched towards straw men.

Edward Nevin

Edward Nevin is professor of economics at University College, Swansea.

Before the new realism

Industrial Relations and Management Strategy
edited by Keith Thurley and Stephen Wood
Cambridge University Press, £22.50 and £8.95
ISBN 0 521 25287 3 and 27377 7

The last three years has seen the publication of several books and numerous articles on the subject of management's approach to, and involvement in industrial relations. This follows an earlier period covering most of the 1960s and 1970s when trade union growth and its development within the workplace attracted much attention to emerging industrial relations "actors", such as the shop steward and the increasingly unionized white-collar workforce.

The present collection of essays, however, is somewhat different to most of the others on management and industrial relations, since it is aimed primarily at a practitioner audience, rather than an academic one. It is the fourth in a series (following earlier works on the role of the supervisor, sex discrimination and inflation accounting) produced jointly by Cambridge University Press and the Economic and Social Research Council, to appeal to managers, trade unionists and administrators, as well as provid-

ing an introduction to students of management and industrial relations.

The book is divided into three parts, focusing on the management function in industrial relations, the broader organizational context of industrial relations, and the relationship between industrial relations and business strategy. On a number of counts, the book represents a useful collection of readings, yet what will initially strike many practitioners is the way parts of it fail to reflect the reality of the contemporary industrial relations scene. The contents are in fact based on presentations to a conference held back in 1977. While some updating is evident, parts of the first section in particular portray industrial relations in a far different light to that cast by the recent episode at the Cheltenham GCHQ, by "no strike" agreements in Japan, and the governments' desire both to encourage multinational corporations to invest, and to develop high productivity in export-based companies, are

time which is intended to yield results in the medium and long term for a specific problem", has provided a useful vehicle for this wider perspective. Of course, such a focus also runs the danger of imputing a degree of rationality to industrial relations which in practice may often not be there. In one or two of the essays there is also some attempt to overcome another frequent shortcoming in the study of industrial relations in Britain — its parochialism — by extending the analysis beyond these shores. Henley, for example, uses a comparison of employer policies and industrial relations in Kenya and Malaysia to indicate ways in which broader societal factors (such as the outlook of the state) can exert a strong influence on industrial relations. In the case of these two rapidly industrializing countries, the governments' desire both to encourage multinational corporations to invest, and to develop high productivity in export-based companies, are



Clocktower Mill at Burnley, Lancashire. A picture from David W. Lloyd's book *The Making of English Towns: 2000 years of evolution* (Gollancz, £12.95).

identified as strongly influencing the development of personnel policies.

A comparative approach is also evident in the final chapter written by the editors. Together with their introductions to parts one and two, this final essay on business strategy and industrial relations strategy contributes much towards the coherence of the whole.

Paul Blyton

Paul Blyton is lecturer in industrial relations at the University of Wales Institute of Science and Technology.

The International Labour Office in Geneva has issued a *Collective Bargaining: a response to the recession in industrial market economy countries* (ILO, 20 Swiss Francs). It summarizes over 400 examples of collective agreements between 1980 and 1983.

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Sidney Pollard

Professor Pollard's latest book is *The Making of the British Economy*.

BOOKS

Ecology guide

Principles of Ecology
by R. J. Putman and S. D. Wratten
Croom Helm, £22.50 and £9.95
ISBN 0 7099 2016 4 and 2050 4

Although the word "ecology" has been used by biologists for most of this century, it is only during the past decade that it has become fashionable to highlight the ecological dimension in any environmental argument. Public awareness has led to student demand, and teachers of ecology have searched for appropriate textbooks.

So far, large American texts, such as C. J. Krebs's *Ecology*, E. P. Odum's *Fundamentals of Ecology* and R. E. Ricklefs' *Ecology* have had to suffice, but there is now a tendency for smaller books, with British authors, to be published. One of the more successful of these has been Michael Begon and Martin Mortimer's *Population Ecology* (Blackwell Scientific, 1981), written by two of the younger generation of university lecturers. Now Putman and Wratten, also of this younger generation and lecturing in the University of Southampton, have written their text as they believe that there is no existing textbook "which we can recommend unreservedly to our students".

Though arranged in a series of 13 chapters, each of which deals essentially with an isolated topic, the book's structure is unusual in that it starts with the organism, then deals with the community, and finally, after reviewing populations, reviews a rag-bag of topics. Unfortunately, however, the index is not particularly helpful in guiding the reader around this unorthodox sequence of topics.

The long opening chapter on the organism and its environment begins in an abstract way by considering that the efficiency of a physiological process is normally distributed along an environmental gradient, with sand shrimp data used to illustrate the concept. The bias towards animal ecology is very evident, with consideration of the aetiological and nutritional environment of plants being neglected in favour of temperature, the environmental variable in the majority of examples.

The treatment of community ecology follows fairly well-trodden paths, with a brief account of food webs, pyramids of biomass, numbers, species abundance distributions, a very one-sided account of species associations (the extensive European literature on phytosociology is not mentioned), and energy as the unifying concept. In community structure, as communities are viewed as being dynamic, there is a discussion of succession and other processes involving changes in the community. However, many key references, particularly in relation to successional mechanisms such as those proposed by J. P. Grime or J. H. Connell and R. O. Slatyer, are missing.

Turning to the species level, the authors investigate what is meant by the "niche", using Kostitzin's concept (but according to a reference 20 years later) of a multi-dimensional niche. From this basis, they consider the processes of competition, introducing the concepts of carrying capacity (K), rate of increase of populations (r), and the Lotka-Volterra equations. It could be argued that the book is really about population ecology, as there are chapters on how to analyse the structure of populations, population stability in relation to competition, and the effects of predators and parasitoids. In a sense the final four chapters, on "evolution and adaptation", "co-evolution", "species diversity" and "stability" are stockpiling, as quite a lot of the concepts have already been introduced in relation to the core chapters on population dynamics.

I do not feel that the authors have succeeded in writing a textbook that can be "recommended unreservedly" to students. A good textbook has two ingredients. It should present a well-balanced and critical review of its subject and direct the student to further exploration in the literature. Here are two examples of where this text fails. References to matrix models



François Péron examining mausoleums on Maria Island in 1802, with his exploration vessels *Géographe* and *Naturaliste* in the background. From Colin Wallace's *The Lost Australia of François Péron*, published by Nottingham Court Press at £9.95.

quote only P. H. Leslie's highly mathematical papers in the 1940s omitting all the reviews published during the past decade which explain and advance these concepts. As for balance, section 10.4 deals with the concepts of r and K selection without mentioning the extensive critical literature, the possible third component (A selection, being developed by P. J. M. Greenfield), or the concept of stress tolerance developed by J. P. Grime.

Although this textbook provides an interesting introduction to some aspects of ecology, students will not find it particularly well balanced, particularly critical of ecological concepts, or particularly helpful as a guide to the ecological literature.

M. B. Usher

M. B. Usher is senior lecturer in biology at the University of York.

Caught in time

Fossils and the History of Life
by George Gaylord Simpson
Scientific American Library:
Freeman, £10.95
ISBN 0 7167 1564 3

Professor George Gaylord Simpson is one of the most eminent and widely respected paleontologists and evolutionary biologists alive today. Though now 82 years old and in semi-retirement, he is still an enthusiastic and productive academic. And he is particularly well qualified to tackle the monumental task of this book: to put into perspective the contribution that the study of fossils has made towards a more general understanding of the evolution of life on Earth.

The first half of the book is devoted primarily to the study of actual fossils. Chapter one charts the history of the discovery from medieval times through the views of Plato, who interpreted fossils as being imperfections of creation into which life-giving spirit had not blown, and of Aristotle, who believed that fossils had grown from seeds in the Earth which would in the future spontaneously come to life. (Heldisway, to Steno and Hooke, who independently suggested that fossils were the remains of once living organisms; at the end of the eighteenth century, the demonstration that groups of animals had become extinct in the geological past. Cuvier founded the technique of comparative morphology, which enabled him to reconstruct complete animals from fragmentary fossil remains. It was Darwin, however, in the middle of the last century who finally put fossils into their perspective, by demonstrating the likelihood that evolution proceeded by natural selection and that in time

fossils would indicate genealogical relationships between distinct living groups. Professor Simpson then goes on to explain the various physical and chemical processes that can lead to the formation of a wide variety of fossil types.

Chapter two, on fossils as living animals, describes the techniques used to study fossils. After laboratory preparation and cleaning, detailed studies of structure and comparisons with analogous living forms help provide understanding of fossil form. When living forms are not directly comparable, then that understanding becomes a matter of interpretation based on basic biological and mechanical principles and common sense. And this has led to some famous controversies such as that over worm-boredness in dinosaurs. There are also the more mundane problems of naming new species and adding them to established classification systems; and as various systematic procedures can be used to incorporate new species into some classificatory scheme, Professor Simpson devotes some space to the issue of cladistics, a systematic technique that has stimulated much, rather unnecessary, controversy in recent years.

In chapters three and four, Professor Simpson painstakingly explains the relationship between fossils and time, and space. He outlines the method of measuring geological time using radioactive isotopes and the techniques of stratigraphic correlation using fossils as a means of sequencing layers of rock that are otherwise not amenable to isotope dating. Just as in the present day certain types of plant and animal are characteristic of certain areas of the world, for example, the marsupial fauna of Australia, so it was in the past. However, the apparent geographical distributions tend to be rather different the further you go back in time, as plate tectonics produced differing arrangements of the continents. This information can be used to gain an understanding of the means by which the present-day distribution of organisms has arisen. A classic example of this type of investigation is the faunal history of South America, upon which Simpson is the acknowledged master.

The other half of the book revolves around our attempts to clarify a number of specific issues concerning the mode and tempo of the evolution of life on Earth. First, speciation: how do new species arise and what is their mode of appearance; do species appear instantaneously, or do they appear by a series of almost imperceptibly slow changes? Simpson does not regard these views as mutually exclusive. Second, extinctions: extinction is the rule, the inevitable fate of all organisms, yet why do some taxa become extinct earlier than others? Why are others particularly long-lived and why do there seem to be periodic mass extinctions? Although Simpson wrestles with these difficult and profound issues, he finds no clear answers. In recent years, the issue of tempo has been a considerable puzzle, partly because of the fossil record

lunge to the principally Darwinian view of evolution as a gradual process. The "punctuated equilibrium" model of evolution, which has been persuasively advocated by, among others, Niles Eldredge and Stephen Jay Gould, proposes that evolution is essentially a "jerky" process, that is, species remain morphologically stable for long periods of geological time and then undergo a rapid change in form before settling down for another period of stasis. Simpson, an avowed gradualist, provides a quite useful review of the two schools of thought and not surprisingly concludes that the punctuated equilibrium model, though interesting, is unnecessary (a view I would not endorse).

Simpson concludes with a brief review of people and fossils: not only the evolution of man, but also the various beliefs (for example, Christian fundamentalism) that people hold about fossils and evolution. And here he provides us with a brief insight into his own philosophy.

This is an excellent book: beautifully written, well illustrated and reasonably up to date, with much useful discussion of many topical issues.

David Norman

David Norman is lecturer in zoology at Brasenose College, Oxford.

Plant roots

Paleobotany and the Evolution of Plants
by Wilson N. Stewart
Cambridge University Press, £17.50
ISBN 0 521 23315 1

Paleobotany, or the study of fossil plants, is not usually regarded as one of the most exciting areas of plant science. Paleobotanists often become embroiled in the minute structural details of the fossil samples, all too easily ignoring their evolutionary and biological significance judged in terms of living organisms. In this admirable book, however, Professor Stewart has managed to emulate my late colleague, Professor Tom Harris, in being able to "bring fossils to life" - by writing in a refreshingly direct style, which is deliberately intended to reflect the sort of presentation that might be expected in a classroom, and by emphasizing the evolutionary significance of the structures described.

The book is divided into 28 chapters, the first three of which provide a thoughtful introduction and accounts of the preservation and preparation of fossils, the nature of the fossil record and problems of reconstruction and naming. All this would repay careful reading, especially by those not familiar with the ways in which plants can be used to reveal the details of the

chapter on reconstruction. Professor Stewart discusses the basic development of techniques. For the seventy-five years, the study of "hand-ground" sections, sufficient to enable a mass of information to be obtained. This elegant method was laborious and required great care. It was also wasteful of material and not allow the preparation of the sections so essential for the three-dimensional reconstruction of the fossils. A solution of these problems was found in the "peel technique" introduced by Professor James H. W. W. Lacey in 1959. This simple elegant technique involves etching the surface with acid, which leaves the walls and contents almost unaffected, and then flooding it with acetone, which introduces a film of cellulose acetate. This eventually leaves a hardened sheet that can be peeled off, on to which details of the fossil have been transferred.

After dealing with fossil microorganisms, algae and fungi, not always covered in textbooks of paleobotany, Professor Stewart devotes his chapters to the important question: "How the land turned green" - in other words the origin of land plants and the problems of the origin of the terrestrial environment and transported seeds around the plant by special conditions. The origin of modified cells (vascular tissue) is rightly regarded the origin of vascular plants as at least as important in degree as that of the origin of the land. Indeed, the colonization of the land by plants, leading to the ultimate establishment of the terrestrial systems on which all animals, including man, are dependent for survival, must represent a crucial event in the development of civilization. Viewed in this way, paleobotany is far from dead. Not every paleobotanist would agree, however, with Professor Stewart's interpretation of the evolution and relationships of the main lineages of land plants.

After reviewing the evolution of the main groups of vascular plants (ferns, gymnosperms, angiosperms, and progymnosperms) Professor Stewart considers in detail the origin of the seed habit. Again this is a major event in plant evolution, because of the enormous selective advantage conferred on the plants that have them. Then, as befits a plant that flourished millions of years ago and survives to the present day in a small population in China and as a tree in temple gardens, the living tree *Ginkgo biloba* is given a chapter of its own.

The final part covers the origin of the early evolution of the angiosperms, the dominant group of plants today. Professor Stewart admits that he approached the subject "with some trepidation", because of the plethora of conflicting concepts, hypotheses, theories and ideas. Despite this, he manages in some 25 pages to marshal and review the key evidence, reaching the conclusion that, based on the fossil record, a polyphyletic (or more simply pleiophyletic, indeed triphyletic) origin of angiosperms from gymnosperms seems more plausible than any other opinion (which regards them as a monophyletic) might command.

This, he is rightly saying, would free from the need to focus our attention on seeking the precursor of angiosperms that is the single evolutionary line that must other books and systems of classification seek to infer. Finally, there is a two-and-a-half page summary of the major evolutionary events and trends in plant evolution, accompanied by a chart summarizing the distribution of the major plant groups in geological time. The book is well illustrated with excellent line drawings, photographs and numerous charts; and the text is well documented with a list of references at the end of each chapter, totalling over 1,000 titles. I have seldom read a textbook with such enthusiasm and I recommend it to students and staff.

V.H. Heywood

Professor Heywood is head of the department of botany at the University of Reading.

A further collection of essays by Lord Thomas has been published by the University Press as *The Younger Dryas*, £10.95. It is a collection of a number of

BOOKS

Newton's optical papers

The Optical Papers of Isaac Newton
Volume one: *The Optical Lectures, 1670-1672*
edited by Alan E. Shapiro
Cambridge University Press, £65.00
ISBN 0 521 25248 2

It is customary to summarize Newton's achievement in science under three categories: mathematics, mechanics, and optics. Recent years have given us editions of his papers on dynamics and of the *Principia* with variant readings, as well as a truly splendid edition of his mathematical papers. With the publication of the optical papers, the most important manuscript remains concerned with Newton's central endeavours in science, as they are commonly regarded, will be available to everyone.

The editor foresees a total of three volumes. As he claims, volume one holds special importance for the student of Newton; the optical lectures of 1670-72 that it publishes constituted Newton's first treatise in physical science. As the last few months have also

given us an edition of *Certain Philosophical Questions* (Cambridge University Press, 1983), his first venture into the domain of natural philosophy, editorial scholarship is making readily available the crucial record of Newton's early efforts, a record essential to any just estimate of his legacy to science.

The problem of fitting the optical papers into coherent volumes has led the editor, correctly in my opinion, to begin his edition, not with the earliest papers, but with the two versions of the optical lectures delivered, or at least composed, by the newly appointed Lucasian professor in the years 1670-72. Another professor that I have been able to imagine would have divided these two versions between two different volumes, with a greater loss than the exclusion of the earliest papers from volume one entails. The lectures themselves, like Newton's optical work as a whole, offer to the non-specialist the readiest access into the arcana of Newtonian science.

There are mathematical sections in the lectures; indeed the editor argues that Newton's goal in the lectures was to construct a mathematical science of colours. However, the mathematical portions have proved historically to be their least important aspect. There are, in addition, more technical subtleties in the non-mathematical portions than appear on the surface, although the editor's notes offer effective assistance.

Nevertheless, the optical lectures consist primarily of an account in prose of an experimental investigation to establish the heterogeneity of light. The reader does not need mathematical

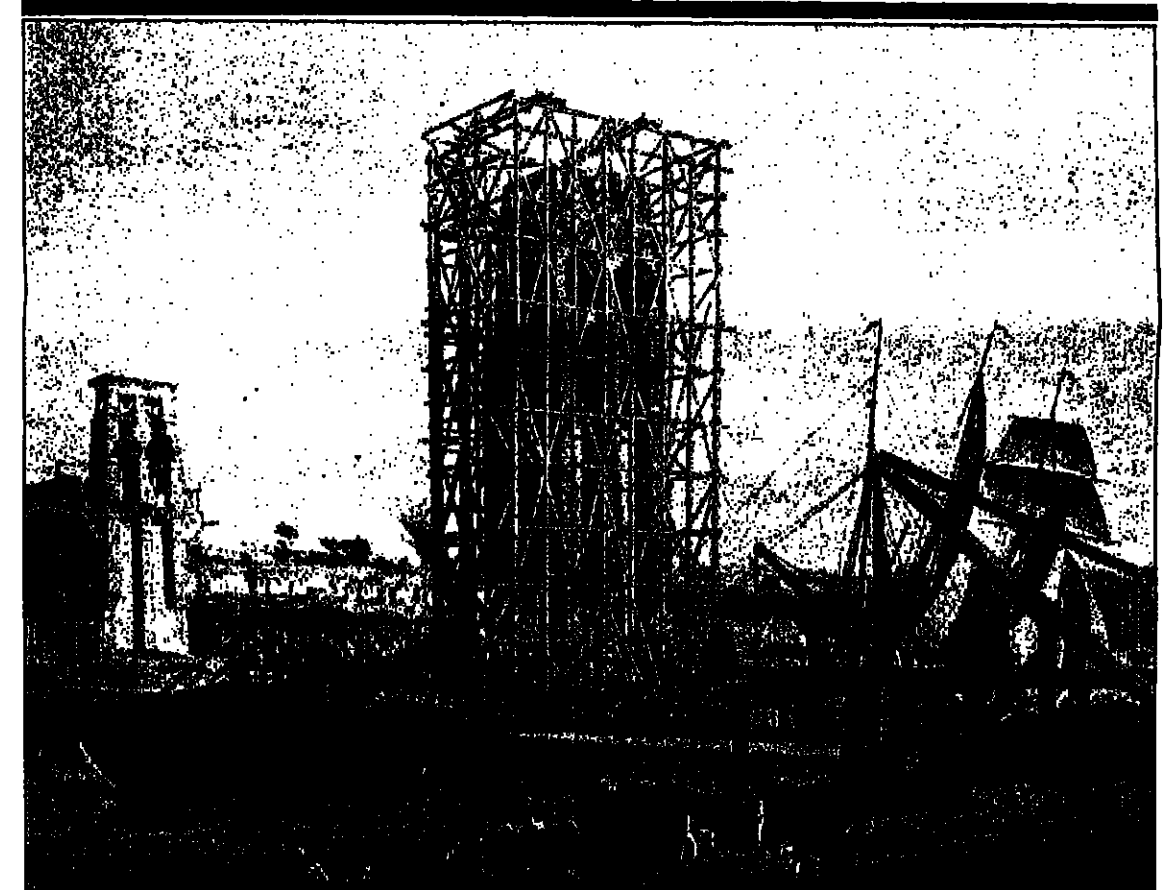
expertise in order to appreciate the ingenuity with which Newton pursued his experimental programme. And even though the volume will satisfy scholars, it remains open to the general reader who wants to make direct contact with a seminal thinker of the scientific revolution.

I cannot sufficiently express my admiration for this excellent volume and for the achievement of its editor, Alan Shapiro. The volume contains everything I wanted to see in it and many things I did not have the wit to imagine. The introduction does what an introduction is supposed to do, and does it very well, without attempting to supplant the text. The footnotes offer an excursion into recesses of the history of optics that I do not recall seeing discussed in a similar way elsewhere. The English translations, which face the original Latin page by page, flow smoothly.

It takes a bold man to venture into the editing of Newtonian manuscripts. Because of the outstanding achievement of D. T. Whiteside, whose edition of the mathematical papers is generally regarded as the premier edition of scientific papers, the editor of Newtonian materials must expect to be judged by the highest standard. Unless I am badly deceived, Shapiro's edition of the optical papers can stand with pride beside it.

Richard S. Westfall

Richard S. Westfall is professor of the history and philosophy of science at the University of Indiana, and author of *Never at Rest: a biography of Isaac Newton* (1980).



Construction of Britannia Tubular Bridge in May 1849. From *Stephenson's Britain* by Derrick Beckett, published by David & Charles at £9.95.

Transient pulses

Introduction to Microwave Electronics
by T. C. Edwards
Edward Arnold, £4.95
ISBN 0 7131 3495 X

The transmission of signals around the world for business, war, government and entertainment has been built into society to an extent that is little noticed but much relied on. Microwaves, electromagnetic waves of wavelength roughly in the range ten centimetres to three millimetres - carry a major part of this communication traffic, as the high frequency that accompanies their short wavelength means that many messages can be transmitted simultaneously.

New techniques have brought new uses. Communication via satellites is perhaps the most spectacular recent advance, offering the possibility of direct broadcasting to an audience via satellite, with signals going from transmitter to house in two hops - to the orbiting relay station and back down to

the domestic receiver. During the next decade it will be interesting to see whether parabolic dish aerials two metres in diameter (or a little less) sprout from roof tops as H. A. H. did from chimneys in the 1950s. A second major application, radar, requires transmitter powers up to gigawatts, although it has the same need for low noise receivers as does transmitter-receiver communication. To make all this possible, powerful, efficient transmitters and sensitive receiving devices and circuits have been invented and perfected.

In this short introduction to these topics, Dr Edwards outlines many different devices and explains their uses and their advantages over alternatives. Underlying theory is not presented (mathematical demands are slight), but there is enough material for readers to solve a useful set of problems (numerical solutions included). Topics introduced include vacuum valves of traditional and recent design, and a range of semiconductor devices: silicon and gallium-arsenide transistors, Gunn, IMPATT, TRAPATT, PIN, varactor and back-gate diodes. Noise concepts are briefly discussed. However, although there are other topics that are closely related to microwave devices (such as microwave circuits, waveguides, and antennas), they are not covered in this book.

The book is really a long review article put into its own covers. It might appeal to students considering or starting courses in communications or microwave electronics or to anyone with a general technical or scientific background.

D. A. Fraser

Dr A. Fraser is lecturer in electronics at Chelsea College, London.

Digital systems

Fundamentals of Modern Digital Systems
by B. R. Bunnister and D. G. Whitehead
Macmillan, £17.00 and £8.50
ISBN 0 333 32898 1 and 32901 7

As the addition of *Modern* to its title would suggest, this completely revised version of an earlier text by the same authors published in 1973 does indeed present a broad coverage of all of the fundamentals of present-day digital systems, ranging from simple combinational logic through to software-programmable devices and systems. It is this latter range of material which distinguishes this text from those of a decade earlier, when software programming was generally confined to computing systems on-line.

The authors emphasize in their preface the importance of presenting fundamentals common to all modern digital equipments, and have attempted to base all their material upon this principle, concentrating on basic material rather than highlighting specific examples of current digital logic packages and other hardware products. References to further reading, however, are given at the end of each chapter.

The eight chapters range through combinational logic, number systems and coding, semiconductor devices and circuits, logic design techniques, sequential logic components, storage systems, programmable devices and systems, and data transmission and conversion. The first two of these provide a conventional coverage of elementary material, in a very clear manner with numerous worked examples. Further examples are given at the end of every chapter, with solutions being given to the numerical questions at the end of the text.

The chapter on semiconductor devices and circuits is rather short and may be inadequate for some readers. Although transistor-transistor logic, integrated injection logic and emitter-coupled logic bipolar technologies and n -channel and complementary metal-

oxide-silicon (MOS) unipolar technologies are mentioned, NMOS in particular receives very scanty coverage. Enhancement-mode rather than depletion-mode is shown as the load transistor in the NMOS logic circuit, and metal-gate rather than silicon-gate is inferred in the MOS device construction details. However, for engineering purposes this may be a perfectly satisfactory basis upon which to build further details when necessary.

The following two chapters provide a sound introduction to both combinational and sequential design techniques. Read-only memories, programmable logic arrays and multiplexers are introduced, as would be expected in a modern digital text, and in sequential design the usual state-tables and state minimization techniques are considered. The marriage of read-only memories and programmable logic arrays with storage is also treated.

Leaving the fundamental device and circuit design level, the final three chapters then deal at system level with storage, bus oriented structure and general data transmission. The coverage of storage is broad and interesting, ranging from bipolar and MOS memory, bubble and charge-coupled device memory, and magnetic tape recording. Principles of software-programmable systems then follow, the concluding chapter dealing with further practicalities of system design, together with standards, together with the Cambridge Ring and Ethernet networks and other data communications procedures.

The authors, both at the University of Hull, have had wide experience in undergraduate teaching and this is reflected in the clarity of exposition and accuracy of their text. Though primarily a very useful basic book for all university and polytechnic students studying digital electronics and digital systems, it would also be very suitable for students studying alone, as it is not burdened by unnecessary mathematics. It may not, however, be of sufficient depth for the latter part of specialist degree courses in this subject area. Nevertheless, it is a very worthy successor to the earlier text.

S. L. Hurst

S. L. Hurst is senior lecturer in electronic engineering at the University of Bath.

Calculus cookbook

Differential and Integral Calculus
by R. L. Wallis
Van Nostrand Reinhold,
£9.95 and £5.25
ISBN 0 442 30578 8 and 30579 6

A quarter of a century ago when British vehicles reigned supreme on our roads, British textbooks on mathematics for engineers and scientists occupied a similar position in the classroom. To take a well-known example, the volumes of *Advanced Mathematics for Technical Students* by Goary, Lowry and Hayden were widely used and respected, and provided a sound and thorough treatment. Certainly these authors would have been agast at the slip by Wallis in calling logarithms to base ten "Napierian".

More seriously, they were careful to explain that, in general, operations on infinite series require absolute convergence, whereas in Wallis's book this condition is ignored because only Taylor series are discussed, thereby providing a potential source of confusion. These two points illustrate that the decline in British workmanship over the decades has not been confined to the shopfloor. Further shortcomings in Wallis's text are apparent in the introduction to functions, the handling of differentials, and the definition of the Riemann integral. On a different level, examples are given involving partial fractions without adequate explanation of the general procedure to be followed.

To be fair, the publisher claims that the book should be regarded as an oversteering text between advanced level and first year at university, but even viewed in this light there are a number of popular topics, such as sets and convergence of series, which are not included. Of course, as the author admits, it is impossible to be exhaustive in such a short text, and most of the basic material is covered. Simple notions of functions and limits are introduced, but the text is not as thorough as it should be.

A second edition of B. K. Ridley's *Time, Space and Things* has been published by Cambridge University Press at £15.00 and £5.95. Dr Ridley surveys in simple non-mathematical terms what physics has to say about the fundamental structure of the universe.

fertilisation and integration, albeit without going into any great depth. Partial differentiation and Taylor series for functions of one or two variables are dealt with in similar detail, and the book ends with a useful treatment of determination of extreme values.

The overall approach is very much of the "how-to-do-it" variety, and I do not agree with the claim that the book could meet the needs of the specialist mathematician. The problems Wallis expects students to solve are of a routine nature and contain very few applications, a disappointing feature for a subject which is taught above all for its usefulness in other disciplines. Indeed, there is no coverage of applications of definite integrals or the Newton-Raphson method, although the trigonometric and Simpson's rules are briefly mentioned.

The market is flooded with textbooks on calculus, and the bookshelves groan under the weight of American imports. Any newcomer must therefore have something different to offer. The present work may appeal to first-year college or university students wishing to brush up their techniques by following through the generous provision of worked examples. However, the "technical student" of yesterday would probably have been disappointed with the very concise, informal and rather shallow development of the subject given in this book. As the complexity of technology increases, so does the importance of mathematical understanding. To make the vital step beyond the "recipe" stage, today's students need to read much further than this book.

Stephen Barnett

Stephen Barnett is professor of applied mathematics at the University of Bradford.

BOOKS

ENGLISH

The King's two texts

The Division of the Kingdoms: Shakespeare's Two Versions of *King Lear*
edited by Gary Taylor and Michael Warren
Oxford University Press, £35.00
ISBN 0 191 29246

Textual criticism of Shakespeare has recently been experiencing something of a renaissance. This resurgence of interest has its connections with the world of commerce: the decision of both Oxford and Cambridge University Presses to publish completely new editions of Shakespeare is no doubt both symptom and stimulus of the new development. Contributors to the present volume include many of the notable new names, in particular those associated with the Oxford Shakespeare. Its publication therefore offers an opportunity to take stock of current practice.

On the whole, the prospect is encouraging. Reading the volume, it is true, requires formidable reserves of patience and application: its 489 pages incorporate almost 630 footnotes, some of them up to half a page in length, 18 appendices, a 12-page "index of passages discussed", and seven pages of addenda. Yet the great merit of the book is that this massive compilation of evidence is not merely conspicuous but useful, contributing towards the solution of one of the great puzzles of English literature, the existence of two considerably different texts of *King Lear*. Beyond that, the book leads to a better understanding of the play itself. Textual studies have too often tended to inhabit their own hermetically sealed world. Here the writers move readily and with profit between textual bibliography and literary and theatrical analysis. It is a welcome advance.

To understand the debate on *King Lear* a reader must be familiar with recent books including P. W. K. Stone's *The Textual History of "King Lear"*, Steven Urkowitz's *Shakespeare's Revision of "King Lear"*, and Peter Blayney's *The Texts of "King Lear" and their Origins*. For those who cannot find opportunity to acquaint themselves with these rather daunting volumes, Stanley Wells's opening chapter offers a succinct and judicious summary. He also reminds us of the essential facts obscured by the editorially-conflated texts with which most of us work: the Folio has 100 lines absent from the Quarto, and lacks almost three hundred which are in the Quarto; there are more than 850 verbal variants between the two. The accepted explanation has been that the Quarto and Folio variously and imperfectly reflect a single original. Contributors to this volume regard the two texts as distinct, and argue that the Folio represents a revision. The consequences are clear: Folio and Quarto *King Lear* should be studied and played separately, and printed in separate editions. This argument I find persuasive. The only puzzle is that so elegant a solution, and one so consistent with the ways of the theatre, should have taken so long to establish itself in scholarship.

Steven Urkowitz provides a retrospective explanation by showing how the authority of a great scholar editor such as Edmund Malone imposed on his readers essentially the mongrel text we use today. Other contributors take advantage of the theory of revision to cast new light on episodes and characters. Michael Warren, for instance, shows that in revision Kent's role is markedly reduced during the play's second half, apart from the very end. This reflects a reviser's move away from moralizing. Thomas Clayton's case is that the King's part is amplified during the later acts, and is adjusted in emphasis early on — towards both firmness (or obduracy) and humanity. John Kerrigan shows, with both scholarship and grace, that the Folio's part is substantially altered during the rewrite, with increased emphasis on the alienation between Folio and King; furthermore, "in F, the Fool is consistently a wise and worldly jester, more urbane and more oblique than his precursor". For Roger Warren, excluding the mock trial from the Folio represents an acknowledgement

of the technical difficulties of the scene, and a wish to intensify the effect of Act IV scene 6, where similar issues are considered. In his detailed study of Act I, MacD. P. Jackson endorses Clayton's view that revision renders the King "more culpable, human and forgivable". Sometimes, in the ex-cessiveness of a new perspective on a major play, contributors lose their sense of proportion; but in general these interpretations convince.

Among the more technical essays, Paul Werstine's offers an overwhelmingly detailed demonstration that neither the Folio's two compositors, nor the press editor(s), could have been responsible in a major way for the variations between the two texts. Randall McLeod's plea that editors in making emendations should thoroughly contextualize their decisions is both persuasive and showily over-written. More modestly, Beth Goldring demonstrates that Albany and Cordelia (not Cornwall) should speak the Folio's new line "Deare Sir forbear"; and that in the Folio Cordelia should herself introduce her suitors. Gary Taylor has two chapters, one arguing that, apart from a short passage in Act I scene 4, the Folio is unaffected by political censorship, the other, at 118 pages and 170 footnotes, virtually a book in itself. This major essay identifies the dates of the two versions as 1605-6 and 1609-10, and shows that the reviser can only have been Shakespeare — a view that has been questioned.

The Division of the Kingdoms proves itself finally a wondrous necessary book for the study of *King Lear*. Dazzled by the scholarship, cleverness and sheer energy of its contributors, one almost welcomes the error (on page 334) that introduces an unprecedented and remarkable new reading into a famous choric:

but now our ioy,
Although the last, now least in our
deere loue . . .

Several pairs of scrupulous, practised and informed eyes must have scanned this misquotation unnoticed. It is a happy reminder of our common frailty.

J. R. Mulryne

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William Blake on Hampstead Heath, a drawing by John Lland c1820, from *Six Centuries of Verse*, selected and introduced by Anthony Thwaite (Methuen, £12.50 and £4.95).

Against formalism

Blake's Prophetic Psychology
by Brenda S. Webster
Macmillan, £20.00
ISBN 0 333 32847 7

Blake in Context
by Stewart Crehan
Gill & Macmillan, £25.00
ISBN 0 7171 1313 2

Unusual and provocative views of Blake are offered by these two books. Brenda Webster approaches his work in terms of its "psychological content". Stuart Crehan in terms of its "social and historical context". Although these stances are very different they have one thing in common: both writers are critical of mainstream Blake criticism as being merely formalist, preoccupied only with the isolated literary text.

Dr Webster attempts to escape from such formalism by concentrating on what she calls the "intensely personal emotional components of Blake's work". Her purpose is to draw attention to Blake's inner torments of love and jealousy as they are embodied in his works throughout his career. Her method is to analyse those psychological conflicts in terms of traditional Freudian psychoanalysis.

The strengths of this way of reading Blake quickly become clear. Dr Webster offers fascinating readings of neglected early works such as "An Island in the Moon" in which she sees "images of dirt and purity" as expressing Blake's paranoia, his fear of rivalry, and his highly ambivalent attitudes to women. She analyses very imaginatively forms of "devouring" and "self-sacrifice" in *Tiriel* and *Thel*. Less original, but still valuable, are her studies of the Oedipal tensions of the middle-period works: for example, she insists that the *Marriage of Heaven and Hell* be understood not in terms of externalized moral argument but in terms of profound internal struggle.

But the two most suggestive chapters are those on "The Origins of Loss" and on *Vala*. The first brings together Blake's various poems about Urizen and *The Gates of Paradise* in order to explore not so much the oppressive power of the authoritarian father as the even more powerful force of the devouring mother. This is then extended to an analysis of *Vala* which, as Dr Webster shows, "revolves around phallic female and a feminized or hermaphroditic man". She studies these fantasies not only in the text but also in the neglected but extraordinary sexual drawings on the manuscript.

Much of this is stimulating, but there are limitations to this way of reading Blake. First, the basic assumption about the personal psychology in Blake's text can neither be proved nor denied but merely asserted. Second, it

could be argued that Blake's language, pictorial style, and narrative technique, indeed undermine, this kind of analysis of "content". A major weakness in the book is that there is a reference here at all to the Lacanian re-reading of Freud, which would suggest that the psyche is in fact a constructed language. Indeed, Dr Webster's separation of "text" from "psychological themes" causes her book to falter at the end when she tries, but fails, to deal with *Milton* and *Jerusalem*. She offers very reductive readings of other works and in doing so she only shows that in these works "psychology" cannot be divorced from "language".

The challenge of Dr Crehan's study of Blake is to insist that Blake's work is far from being the expression of either an individual consciousness or an atypical experience, is in fact the embodiment of the class struggle at a particular point in time. His assumptions about the nature of art and its place in society are those of Trotsky in *Art and Revolution*. On this basis he offers a strongly Marxist study of social and intellectual context of Blake's work.

This involves bringing different perspectives together in a new way. It sees the social and intellectual context of the time in class terms, and emphasizes the importance of Blake's association with radical craftsmen and artisans. His book is a series of essays on the poetry and art, rather than a sustained argument, and most of the essays are a mixture of historical, critical, and theoretical writing.

Dr Crehan certainly makes one look afresh at Blake. He brings out the persistently political character of Blake's work as forcefully as Dr Webster does its psychological character. He shows very acutely that the voice of Blake's poetry is not merely personal, but embodies a corporate vision; and he argues well that traditional Blake criticism has over-emphasized the image of the Romantic artist as isolated individual. He proposes that there are political implications in Blake's visual style in that its anti-illusionism transcends the limitations of bourgeois realism.

But while this approach to Blake is lively, the book is marred by its style and presentation. The sudden shifts in perspective from critical to historical to theoretical are very bewildering. Also Dr Crehan's way of thinking depends upon large generalizations about literary styles, economic forces, social experiences and historical movements, and few of these generalizations can be sustained. The most valuable parts of the book are those which describe a detailed historical situation and those which comment in detail on Blake's texts. There, and not in generalization, his literary criticism has moved beyond the constraints of formalism.

Frank Stack

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BOOKS

ENGLISH

Digging up ideology

Arthurian Literature and Society
by Stephen Knight
Macmillan, £30.00
ISBN 0 333 33152 1

This is an attempt to write "the real, the socially realized history, of the legend of Arthur". In a series of studies, in which he examines the early Welsh Arthurian narratives, Geoffrey of Monmouth, the *Chevalier au Lion* of Chrétien de Troyes, Malory, Tennyson's *Idylls of the King*, and Mark Twain's *A Connecticut Yankee in King Arthur's Court* (as well as some more recent manifestations of interest in the Arthurian story), Stephen Knight aims to show how the reshaping of the legend embodies the social and political attitudes of the authors and their patrons, or their class. It is an unmissably trendy, mildly Marxist approach which is unlikely to upset literary scholars much, since they have now got used to this kind of thing, but which historians may find rather large on historical generalization and thin on detail.

The early chapters, where in any case the historical context of the literary works under discussion is rather shadowy, are inevitably vague and speculative. The first chapter, where Dr Knight has done a lot of hard work, is on the whole unrewarding.

Two voices

The Elusive Daniel Defoe
by Laura A. Curtis
Vision Press, £14.95
ISBN 0 85478 435 7

Laura Curtis is already known to students of Defoe through her useful selection from his voluminous non-fictional works (*The Versatile Defoe*). In this new work her primary focus is on the novels, but she also draws substantially on her familiarity with the rest of his oeuvre.

In particular, she uses her reading of the 22 volumes of *The Review*, the journal Defoe wrote, single-handed, from 1704 to 1713, to identify two distinct voices (the "plain-dealing" and the "worldly" Mr Review), and pursues the associated styles and images of this dualism through the novels, in the hope of arriving at a more satisfactory understanding of what is often seen as the unconscious irony of Defoe's fiction: that references to again the problems of attribution, and there is an odd incoherence in exposition: many of the passages adduced will mean little to the uninitiated

and he often finds himself telling us what the Welsh stories are about and saying that this is their "ideology". Geoffrey of Monmouth is similarly resistant, and there is a good deal of new to old-fashioned historical speculation concerning the presence of contemporary historical events in his den form in the pseudo-historical narrative.

For Chrétien there is some good earlier scholarship to work with, and a quite convincing account of the way in which his romance serves to resolve tensions between the upper and lower ranks of household knights, and between barons and king, by offering to unite all in a common idealism. The ambitions of landless *juvenes* to marry a rich heiress likewise find a satisfying expression. It is sensible to recognize that the "idealism" of romance has its roots in the needs of a particular class, and the conflicts and stresses within that class, though worth remembering too that this recognition adds a dimension to imaginative understanding rather than subduing such understanding to the imperatives of socio-economic reality.

Dr Knight writes well on Malory, a subject where he has already established his authority. He shows how Malory's portrayal of a unified and powerful kingdom, dominated by the aristocracy, provides a distorted and "euphemized" version of contemporary means of keeping order. It is "a huge set of cases that establish the common law of chivalric peacemaking" — or "policing", as Dr Knight puts it in his more politically self-conscious moments. The speculative historical analogies work better in this chapter.

The last two chapters are fresh and enjoyable. In examining the *Idylls* in the order in which they were written, Dr Knight is able to show how Tennyson is first concerned about the growing power of women in the enclosed family, and the need to "ideologize" away that power in order to preserve

while with *Moll Flanders* we enter the world of the trickster, of "hoax", a comic arena of disguises and doubles which modulate in *Roxana* into nightmare.

There is a clear need for a book on Defoe which will alert the ordinary student to the range of qualities of his miscellaneous output, and to the ways in which his other works may illuminate our reading of the novels. This is not simply a matter of documenting issues and attitudes; and one of the undoubted strengths of Dr Curtis's book is her demonstration, through close readings and generous quotation, of the subtler thematic and stylistic insights to be gleaned from this approach. Again and again she is able to establish an unexpected phenomenological precision in Defoe's apparently hasty prose.

Although in general the discussions of the novels rather confirm than advance the directions of recent criticism, most readers should find the detailed readings rich with suggestion. The book does, however, suffer from various kinds of over-schematization which qualify its usefulness and its powers of conviction. Too much has to be taken on trust. It is symptomatic that references to again the problems of attribution, and there is an odd incoherence in exposition: many of the passages adduced will mean little to the uninitiated

Turning points

The Poetical Works of Robert Browning
volume two: *Stratford, Sordello*
edited by Ian Jack and Margaret Smith
Clarendon Press: Oxford University Press, £48.00
ISBN 0 19 812317 5

The second volume of the Oxford edition of Browning maintains the high standard achieved by the first and contains two of the most important works of his career: *Stratford*, the impossible play which began his unhappy years of enslavement to the theatre, and *Sordello*, the impossible poem which ruined his promising reputation as a poet for a quarter of a century.

In their introduction to Browning's play on Thomas Wentworth, Earl of Strafford, the editors point out that

the patriarchal role, and how in the later *Idylls*, with their attempt to construct a model of an authoritative society, sexual sin is seen as the potent source of destruction, in accord with Tennyson's increasing alarm at the moral relativism of his society. Finally, in Mark Twain, Arthurian society provides an opportunity to criticize and ridicule the "romantic" practices of contemporary backward societies, such as those of England and the old South, but ultimately a means of attacking the horrors of modern industrial capitalism. Dr Knight ends with some illuminating comment on modern Arthurian writing and scholarship, in which he is extremely widely read.

The book will be serviceable as a primer of the sociological interpretation of literature in a series of related fields. It is prone to the statement of the obvious, and there is a tendency to assume that the content or themes of a literary work will be made more exciting if they are called its "ideology".

The socio-economic jargon sometimes seems no more than a careless and commonplace way of putting things that are perfectly intelligible in themselves, as when laying waste an enemy's lands is called "liquidating his productive capacity". I don't want to see "euphemization" or "mythification" again for a long time, and "ideology" perhaps never again. But the jargon, to be fair, is inseparable from the approach. A measured judgment would acknowledge that Dr Knight has written a useful book, and that, even if the bandwagon has been jumped on has been rolling for some time, he conveys something of his own satisfaction and sense of discovery in getting on it.

Derek Pearsall

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without clearer and less sporadic contextual guidance than is offered here.

Too insistent a concern with patterns of argument rather than their substance can be confusing; but it accords with the author's central aim, of providing a context "not of Defoe's ideas . . . but of his temperament". In her certainty of being able to draw this distinction, lies the most disappointing aspect of the book. Traditional literary expectations of authorial organization have always made Defoe seem less intelligent than he is; the very difficulty of pinning him down has, on the other hand, encouraged more radical and open-ended readings of the texts. Dr Curtis allows Defoe his complexity, but sidesteps much of the challenge of authorial "elusiveness" by simplifying it into psycho-biography. Thus, for example, what might be read on the level of exploration of the nature of desire becomes here merely a symptom of Defoe's own particular "restlessness". One is left, frustratingly, with an odd sense of discrepancy between the sophistication and suggestiveness of the material and the ultimately reductive pattern into which it is made to fit.

Penelope Wilson

Penelope Wilson is a fellow of New Hall, Cambridge.

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CHICAGO

The University of Chicago Press
126 Buckingham Palace Road London SW1W 9SD

J. W. Harper

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Seeing Dickens in Isolation

A Dickens Companion
by Norman Page
Macmillan, £20.00
ISBN 0 333 31539 1

Norman Page's *A Dickens Companion* promises to offer much useful information. It presents a wide variety of facts and comment: an extensive chronology; concise biographies of "the Dick-

ens circle", and a novel-by-novel compilation of notes on authoritative texts, brief histories of their composition, serialization, publication, reception and subsequent criticism. The character check lists for each novel are supplemented by a character index at the end of the volume: neither is exhaustive. Relevant biographical information for the readings, speeches, letters and minor works is provided. The concluding section is perhaps the most obviously unsatisfactory. The select bibliography lacks guiding comment and is hence far less helpful than Philip Collins's comprehensive entry in *Victorian Fiction: A Second Guide to Research*. Television adaptations are omitted from the bibliography; the list of early dramatizations is made "highly selective" and hence one fails to grasp the numbers of adaptations, which rapidly followed publication. And the

utility of the appendices is questionable: the "autobiographical fragments" and Dickens's will are both readily available in Forster's *Life* (curiously, Page omits Ley's annotated 1978 version of this from his bibliography). The jottings from the Berg notebook, with the information that "an edition" is in the course of preparation, are tantalizing, but hardly ordered or informative. The notes on the number plans are scrappy, far inferior to the material supplied by Butt and Tiltson, to whom the reader is in any case referred.

It is because Page puts forward so much potentially useful knowledge that one feels this book's inadequacies so keenly. The commentaries on each novel are embittered with remarks uttered by Dickens, his contemporaries, and subsequent critics, but, with an irritating lack of scholarship, we are rarely given specific sources. However, Page highlights well some areas in which further study is needed. He regrets that Dickens's comedy has not received more attention; rightly remarks that "much detailed work remains to be done on Dickens's language and style". His observations on, for example, the thickets of manuscript revisions of *Flora Finch* and *Pecksniff*, show his own ability in this area.

But there are other fields of criticism to which Page is curiously blind. He ignores the contribution made by feminist criticism to Dickens studies; even more culpably, he fails to place Dickens within the wider range of attention which has recently been paid to the Victorian novel, particularly with regard to the possibilities of fictionality and narrative. So while the *Companion* is useful in gathering together information, it is decidedly old-fashioned in its outlook. It primarily serves those who wish to study Dickens in isolation; rather than those who wish to place him in the context of Victorian writing and its attendant criticisms.

Kate Flint

Kate Flint is lecturer in English at the University of Bristol.



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الكتاب

BOOKS

ENGLISH

Taking Shaw to the limit

The Art and Mind of Shaw: essays in criticism
by A. M. Gibbs
Macmillan, £20.00
ISBN 0 333 28679 0
Bernard Shaw: a bibliography (two volumes)
edited by Dan H. Laurence
Clarendon Press: Oxford University Press, £80.00
ISBN 0 19 818179 5

Shaw has not yet received his academic due in Britain, though he has gained rather more than his due in the United States. Professor Gibbs seems well-placed as an Australian to offer us a balanced perspective. His new study of Shaw does indeed offer a perceptive and even-handed account of a still-contentious figure.

This is not a formal treatise on Shaw's work. The early general chapters are illuminating but somewhat diffuse. A chapter entitled "Critical Perspectives" turns rapidly into a discussion of Shaw's theatrical technique which, while interesting in itself, is barely relevant to the stated topic of the vicissitudes of Shaw's critical reputation. The later chapters are more cogently based on individual plays. These are subjected to an informed but sceptical analysis, although the links between the plays might be more clearly established. There is little com-

ment on Shaw's overall development as a dramatist, and several major plays are left out altogether, including *Saint Joan* and *Back to Methuselah*. The book draws on Shaw's biography and on his critical and political writing, but primarily in order to elucidate the plays themselves.

Professor Gibbs explores the creative contradictions in Shaw's work — the tension between realism and romance in the early comedy, the clash of opposing idea and will in the mature drama, the uniquely Shavian comic dialectic of aspiration and deflation. And throughout his creative work, the sense of disorderly life escaping from whatever pattern mankind seeks to impose upon it — even the patterns of Shaw's own contriving. "Making life means making trouble," as Professor Higgins ruefully observes.

The emphasis in this book is on the positive aspects of Shaw's work, but the author acknowledges his limitations too. The final chapter on "Shaw and Suffering" quotes the playwright's response to the complaint by Tolstoy of a fundamental lack of seriousness in his writing. "Suppose the world were only one of God's jokes, would you work any the less to make it a good joke instead of a bad one?" It is a retort which illuminates both the strength and the limitation of Shaw's genius. Professor Gibbs helps to substantiate the case for Shaw as a writer of major importance, while also indicating the limits of his scope.

Scholars owe a considerable debt to Professor Dan H. Laurence for his thirty years of toil on the canon of Shaw's work. This includes the indispensable seven-volume edition of the plays, the complete music criticism, and the steadily accumulating series of collected letters which has now reached 1910. Here we have a two-volume bibliography of works wholly or partly by Shaw, including the ephemera, together with a checklist of books on Shaw — though not articles or essays, which would furnish material for a third volume.

It has been a massive undertaking, made still more difficult by the dis-

appearance and subsequent dispersal of many of Shaw's papers in the last years of his life. Professor Laurence writes with feeling restraint about the activities of the old author's dubious amanuensis, Dr Fritz Loewenstein, a character to whom only the pen of Vladimir Nabokov could have done full justice.

Over a thousand pages of text, 12 different sections ranging from books and journalism to "Wraiths and Strays" and "Misattribution", a comprehensive index, ten pages of acknowledgements — the sheer scale of the opus is staggering. That it should also provide a good read is almost beyond credibility. Yet there is much fascinating material in these pages: the journalism alone provides a rich vein.

From "Musical Notes" in 1876 to "We Sing Better than Our Grandchildren" in 1950; from "England's Difficulty is Ireland's Opportunity" in 1916 to "Shaw Hails de Valera for Mourning Hitler" in 1945; from "The Menace of the Leisure Woman" (1927) to "The Bishop Would Be a Nudist" (1935) — the title headings give us a sense of the range of Shaw's interest, though one somehow doubts that he was responsible for their phrasing. My own favourite is the headline to an interview in 1921: "G. B. S. Threatens Pains and Penalties: If Anyone Turns Pygmalion into Musical Comedy."

So vast was Shaw's output, so keen was the appetite of the press for his most flippant observation, so astiduous was the author in both creating and supplying the demand for his work, that a bibliography of this kind will inevitably continue to require emendation and addition. The publishers are generous in their provision of blank pages for this purpose. It would be churlish to conclude other than by saluting a major new work of scholarship, worth every penny of its daunting price.

Timothy Kidd

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The sleeping Little Nell, as she appeared in the fourth weekly number of *Master Humphrey's Clock* by "Boz". Nottingham Court Press is issuing a facsimile of the entire run of the 88 parts of the paper for a round £100 including postage. Nottingham Court Press is at 44 Gros Russell Street, London WC1B 3PA.

Teasing verse

Pope's "Essay on Man"
by A. D. Nuttall
Allen & Unwin, £15.00
ISBN 0 04 800175 5

In the year in which publication of *An Essay on Man* was completed, Pope wrote in a letter: "Whether I can proceed in the same grave march like Lucretius, or must descend to the geytes of Horace, I know not". Professor A. D. Nuttall observes, in his admirable new contribution to the Unwin Critical Library, that the rival attractions of Pope's two Roman mas-

ters create a tension between the *Essay* as a system and the *Essay* as a miscellany.

He seems to incline to the opinion that it is a miscellany, for, like William Warburton in Pope's day, Maynard Mack in ours, he makes an attempt to prove the overall philosophical integrity, least of all Christian orthodoxy, of Pope's poem on the contrary he freely accepts much of what Pope asserts is inconsistent with our experience, and it exposes Pope's doctrinal contradictions for what they are. He is a highly companionable guide, who does not parade his learning, but unpretentiously insinuates it, defining the terms of the trade ("theology", "pietism" as we go, and, as occasion arises, introducing Spinoza, Leibniz, Lessing, Shaftesbury, William King, Mandeville, Butler, Hume, Voltaire, and other thinkers to illuminate Pope's philosophy, by complementary or opposing strategies of argument.

The substance of his book is a witty alert commentary or running dialogue with Pope's poem, as it unfolds, paragraph by paragraph, constituting a dramatic experience, rather than a static system: at one point he compares himself and his readers to "ill-bred spaniels", teasing at the verses and sniffing out the meaning. His manner may be illustrated by his concluding paragraph of a dozen pages devoted to spurious-like worrying about manifold ambiguities of the final lines of Epistle IV:

Yet Pope has a way of putting the very elusiveness to work. The manner in which the reader's expectations are half-frustrated and deflected is paralleled by the manner of his happiness itself, as Pope presents us. For happiness is both obvious and unobvious, as palpably available to some as bread and butter, yet others find that the harder they look the less they find it. It is therefore in a way a paradoxical proper that the paradox itself should shimmer before the reader's mind.

Moving to the concluding complaint to Buntingbrooke,

"Tis never to be bought, but above the price of gold,"

And fled from Monarchy, St JOHN! dwells with thee. Nuttall adds: "The last steps of the figure are faultlessly performed and the reader, formally excluded by personal pronoun, 'thee', politely cannot help but applaud Nuttall as Professor Nuttall is almost invariably a beautiful mover: he is flatteringly misreading categories, 'Romantic' and 'Augustan'. He occasionally represents the *Essay* in its work as the work of a man, a pilloried figure, the 'Augustan' in letters, critical, urbane, and in its better moments the *Essay* as a pre-Romantic manner in which Augustan control remains the ideas and emotions begin to break into a kind of rapture, or 'pre-Romantic exhalation'. Vexation on encounter with those outdated and stimulating 'Romantic-Augustan' categories is, if anything, increased by the very sensitivity and alertness of Nuttall's criticism overall.

A. J. Sambrook

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BOOKS

ENGLISH

For all seasons

The Later Poems of John Clare 1837-1864, two volumes
edited by Eric Robinson and David Powell
Clarendon Press: Oxford University Press, £85.00 (published May 10)
ISBN 0 19 818740 0

Fifty years ago, Clare was almost unknown; now he is given the ultimate accolade of a presentation in this fine and expensive Oxford English texts edition. During his own lifetime he could have had few expectations that he would, like Keats, be among the English poets after his death; yet here he is, given the full treatment — authentic texts, accurate dating, explanatory and textual notes, glossary.

These volumes are full of surprises,

Come from the grave

Shakespearean Dimensions
by G. R. Wilson Knight
Harvester Press, £18.95
ISBN 0 7108 0628 0

"I have always, from my first publication *Myth and Miracle* in 1929 onwards, been concerned with this further dimension," says Professor Wilson Knight, the dimension in question being the spiritual. Indeed the present collection of essays, drawn from many different times and places, underlines the continuity over many years of his interest in the visionary and occult. "Shakespeare's poetry offers us in varying degrees an idealized, and therefore spiritualized, reading of man," he writes, and *Timon of Athens* remains for him the principal testament of that dimension, "central to the prophetic literature of Renaissance Europe," according to a piece first published in 1940, and "our one supreme expression of the central enigmas of the human race, in the words of another essay forty years later. This extraordinary preoccupation with the figure of Timon has to do with the mythic import of his progression away from a materialistic society to a world beyond, an elemental world of naked sublimity which finally leads to the mysterious 'life-death transition', the ultimate dimension.

In his most recent essay on the play, Wilson Knight sets out to assimilate it to the teachings of Buddhism, comparing Timon's rejection of mankind to "the Buddhist's rejection of the world of suffering and his voluntary death to the state of Nirvana. In these terms, the misanthropy and nihilism of Timon's attitude to temporal existence are revalued transcendently. It is rather late in the day to take issue with Wilson Knight's long-established veneration of Timon, but the case is central to his interpretation of Shakespearean tragedy from a point of view that is beyond tragedy itself.

The issue of death and the limits of tragedy is raised again in a kind of postscript on *King Lear*, suggesting that 'the cliff scene presents the paradox of a non-existent precipice as an analogy to our mistaken apprehension of death as 'a fall into nothingness'. The perception is complemented by a fresh interpretation of Lear's much-debated last words:

THE INDIANNESS OF RUDYARD KIPLING
by G. S. Azar Hussain
Cosmic Press, London

and a good, though brief, introduction.

The result is strangely moving, if only because of the very uneven quality of the later verse. Here is the whole of the later Clare, long after he had given up hope of being published again, and long after he had even given up collecting his poems together as he had done in *The Mistletoe Garland*. There is a certain sense of authenticity about these poems, which comes from the fact that they are all included, the good, the bad and the mediocre: this is Clare in all moods, a poet for all seasons in more than one sense. And from so much that is tentative and derivative, the great poems of the later years rise like rare birds.

The period covered by these volumes dates from Clare's admission to Dr Matthew Allen's private asylum near Epping in 1837 to his death in the mental hospital at Northampton 27 years later. The reason why the poems of these years are the first to appear is simply that the originals are in a better state than the manuscripts of the early poems. Many of them were transcribed by the house-steward at Northampton, W. F. Knight, who earned an unexpected immortality by his encouragement of Clare and his preservation of the poems.

These volumes are full of surprises,

and a good, though brief, introduction.

Look there, look there!

A. C. Bradley tentatively supposed that Lear dies believing Cordelia lives, a reading which is open to Wilson Knight's objection that the hero cannot be presumed to die in a state of delusion. Wilson Knight proposes that Lear's final words are prompted by the "sight of her soul-body released", a reading which requires that we awaken our spiritualist faith. The tragedy surely insists on the fact and finality of death in each case.

When Paulina requires us to awaken our faith in the statue scene of *The Winter's Tale*, we are indeed in a dimension beyond tragedy. Wilson Knight takes up the question of Hermione's survival, or revival, in several of the pieces included here; the problem of understanding this climactic scene has evidently continued to absorb him as persistently as the death-passage of Timon. The sense of mystery and miracle attending the spectacle of a work of art apparently coming to life is certainly at odds with the commonsense awareness that Paulina has kept Hermione alive in seclusion, but both would seem to co-exist, although Wilson Knight would make them mutually exclusive.

In his latest essay on the scene, he suggests that we are witnessing, within the limitations of human art, something akin to a spiritualist conception of a "manifestation", with Paulina as

Fifty years on

George Moore in Perspective
edited by Janet Eggleston Dunleavy
Colin Smythe, £10.50
ISBN 0 389 20395 5

The fiftieth anniversary of the death of George Moore has prompted publication of this volume of essays. Commemorative volumes have the virtue of bringing together work otherwise scattered through periodicals, but there is a danger that the occasion may elicit slight pieces, written to order. With certain exceptions the present volume seems to fall into that trap. A reader seeking to learn little or nothing about Moore would learn little from this book, and the book's appeal is likely to be restricted to existing enthusiasts. Like some weekend conferences, it offers contributions which differ so considerably in tone, depth and approach that they leave a doubt whether the occasion could not have been put to better use.

The opening essay, "George Moore: a reappraisal", by Janet Dunleavy, can be excepted from such strictures. Professor Dunleavy describes the various phases of Moore's career, outlining the problems of classification which face "serious students". Much of Moore's writing is an amalgam of fact and fiction, autobiography and invention. Unreliable as a source, whichever genre he was ostensibly using, he had a habit of twisting events to suit his own version of them. As a novelist, Moore

of unexpected twists and turns: the accumulated effect of reading the poems together is that of finding an undirected, random poetic intelligence at work. There are, for instance, many poems to young girls; as Geoffrey Grigson once remarked, their names grow up like weeds round the pages. But what might not have been anticipated is a poem such as "Angels of earth", which is a kind of heterosexual version of Herbert's "Providence": woman becomes creation's masterpiece, the loving hand of God seen in their soft bosoms and gentle eyes.

Similarly, the folk-song tradition is an expected element in these poems; what is less often noticed is that Clare was a very good mimic, able to catch the turn of phrase and even the tone of voice of others. There are Scottish poems, after the manner of Burns, or of Byron's *Hours of Idleness*; there are even references to the Highland Clearances, which probably drew Clare's sympathy from his own sense of being uprooted and dispossessed. There are biblical paraphrases, too, and poems such as "The Maid of Jerusalem" which are clear imitations of Byron's *Hebrew Melodies*.

In addition to such a striking variety of subject-matter, there are immense variations of tone and quality. From the High Beach period alone come the

medium:

Shakespeare, or his inspirers, are trying to get some great truth home in terms of his own limited stock-in-trade, which included fascination with visual artistry, itself on the borderline always of the supernatural, together with a reliance on religious terminology and belief.

What is missing from this is a recognition of the warm, breathing physical reality of Hermione — embracing Leontes and the blessing of her no less miraculously living daughter:

Tell me, mine own, Where hast thou been preserv'd? Where liv'd?

There needs no ghost come from the grave to tell us this.

Paradoxically, while *Shakespearean Dimensions* recalls the principal concerns of an interpretative approach that has had a major influence on modern critical discussion of the plays, the main impression conveyed by these essays is that of a highly individual and idiosyncratic mind reaffirming its own abiding personal convictions. It is true, in the words of one commentator quoted here, that "we are all the inheritors of Wilson Knight", yet, as these essays show, he remains an arch-exponent of the heterodox.

D. J. Palmer

D. J. Palmer is professor of English at the University of Manchester.

is widely known for the early *Esther Waters*, a "realist" work in which he made his most sustained attempt at objectivity. His other novels are little read, and many readers probably prefer the books which are closest to autobiography, *Confessions of a Young Man* and the trilogy, *Hall and Farewell*.

Two essays in *George Moore in Perspective* discuss Moore's possible effect on younger Irish writers: Joyce and Beckett. Any connexion between Moore and Beckett is conjectural, and Melvin Friedman's essay is concerned with affinities rather than with direct literary influence. The relationship of Moore and Joyce has been analysed in some perceptive speculations about Joyce's artistic jealousy of an older writer whose techniques were often close to his own.

Robert Stephen Becker gives a glimpse of his forthcoming edition of Moore's letters. Like Edwin Gillier's 1907 account of variant published editions, it reminds the reader of Moore's commitment to art. He once told Lady Curzon: "Other men have wives, children, religion, God, I have only my star, my ideal, my ideal of light, love and grace which I follow always."

Three of the contributors attempt to set Moore in his geographical background. Mayo, Paris and Dublin are selected, rather than London, where Moore probably spent at much time as in all three together. The Paris essay is a fascinating study of the city between 1873 and 1880, but Moore's involvement is largely peripheral. If we learn more about his time in Dublin, the effect is curiously unimpressive. Dublin is an eternal city, a city transfixed in the movement from empire to imagination with a democratic heart: "is the first sentence of an essay which never seems quite sure of its direction."

Richard Byrne's fresh and readable account of his own discovery of Moore's family home tells us about Mr Byrne rather than about Moore. In the course of his work for the Electrical Supply Board Byrne enjoyed swimming, rowing and fishing in Lough Carra, near the burnt-out shell of Moore Hall. The author does not comment on the juxtaposition of a 19-year-old, away from home for the first time, with one of Moore's most potent artistic symbols. We must supply our own memories of *The Lake*, whose hero, a priest, endures an agonizing period of introspection before leaving his parish. Feigning death, he swims out to a new life. "There is a lake in every man's heart," he said.

The most substantial essay is Gareth Dunleavy's study of Moore's medievalism, which opens up a little-known area of his fiction. In an analysis of *Helios and Abellard* and *A Story-Teller's Holiday*, Professor Dunleavy explores Moore's "sustained artistic effort to describe the destruction visited upon Ireland from earliest times through the beginning of the twentieth century". There is a confident breadth of response here, and one is not surprised to learn that the author had been working on the subject for many years. It is for expositions of this kind that commemorative volumes should exist.

Leonee Ormond

Leonee Ormond is lecturer in English at King's College, London.

unpretentious "Song on Tobacco", the lovely lyrics of "Child Harold", and the *oliva rima* stanzas of "Don Juan", which often echo Byron and add Clare's own bitter coarseness. It is in such inclusive contrasts and contradictions that the value of this edition lies: it enables us to see the later Clare steadily, and see him whole.

"Real poets must be truly honest men," Clare wrote in "Child Harold". There is certainly an ingenious honesty about the poems in this edition, which is given more emphasis because he cannot always write with the magnificence of "A Vision" or the grace of "I'll come to thee at even tide". This is ordinary John Clare, as well as extraordinary John Clare; for the other Clare, the poet of Helpstone and its enclosures, author of "The Parish" and "The Flitting", we shall have to wait for further volumes in this edition. The whole enterprise should be quite remarkable: an act of faith in a poet who is unique among the romantic poets in the simplicity and directness of his expression of experience, and an indication, if one were needed, that we cannot think of Clare as a minor poet.

J. R. Watson

J. R. Watson is professor of English at the University of Durham.

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Ideology aside...

The Novel and Society: Defoe to George Eliot
by Graham Smith
Batsford, £14.95 and £6.95
ISBN 0 7134 2698 5 and 2699 3

"Discussion of the social context within *Persuasion*", Graham Smith comments in this book, "demands critical tact". So tactful he indeed, so elaborately wary of all sociological reductionism, that for whole stretches of his study the "and Society" of the title becomes effectively superfluous, submerged beneath a much more standard form of practical criticism. Such criticism will now dutifully acknowledge the social dimension of art, since it is no longer fashionable to be full-bloodedly formalist; but because it is still traumatized by the prospect of mechanistic determinism, that acknowledged is often little more than notional.

The supposed reductionism of Marxist criticism is, in fact, for the most part a liberal fantasy. Almost every Marxist cultural critic of note has vigorously combated such an approach, insisting on the centrality of artistic form. Liberal critics, however, are reluctant to be deprived of their Aunt Sallies; so Dr Smith clings to the view that Marxism is an economic determinism, however few Marxists he would find to support him. Social conditions, he holds, may facilitate the novel form in general, but varieties of form must be accounted for by "individual genius". The social criticism for which he argues, that is to say, can by his own admission tell us almost nothing specific about literary works. Faint-hearted and self-doubting, his book nervously undercuts its own thesis at every turn.

It is hardly surprising, then, that much of what it has to say of particular English novelists is either tangential to its declared preoccupation, or "social" in so nebulous a sense that the concept rapidly sheds all precise meaning. Defoe is praised for his "heterogeneity", a quality planned extremely loosely to social change; the concept of melodrama in *Clarissa* has equally obscure social roots; the treatment of *Tom Jones* is a good deal more immanent than contextual. Austen, Dickens and Thackeray, perhaps unavoidably, receive rather more direct "social" attention, but much of this is as unoriginal as the concluding chapter's claim that *Daniel Deronda* marks a break with classical realism. A telling sentence from the Richardson chapter begins: "Leaving aside the intricacies of ideology..." Any Marxist critic who dared to write "Leaving aside the intricacies of literary form" would be properly upbraided; but the intricacies of ideology are apparently alien to Dr Smith's mildly commonsensical viewpoint, and so, even in a study purporting to deal with social consciousness, may be cavalierly dismissed.

The author's view, roughly summarized, would seem to be that all literary works are social, but some are more social than others. *Wuthering Heights*, for example, may well have its social aspects, but "it is just not truthful to discover (the novel) in social terms". Emily Brontë, as often, acts as the litmus test of social criticism: if even *those* transcendental mysteries are amenable to ideological analysis, what indeed is sacred? It is doubtful whether Brontë herself shared this anxiety; her novel strongly persuades us to believe that the tragic history of Catherine and Heathcliff was "inspired by the former's rejection of the latter as a socially inferior author."

Terry Eagleton

Terry Eagleton is fellow and tutor in English at Wadham College, Oxford.

A *Corley Reader*, edited by G. B. Tennyson, was published yesterday by Cambridge University Press at £25.00 and £5.95. First published in the USA in 1969, the anthology includes examples from all periods and types of poetry.



"The small hours in the sixties at 16 Cheyne Walk" by Max Beerbohm shows Swinburne reading to Galsworthy and William Rossetti. Taken from Margaret Stonyk's *Nineteenth-Century English Literature* (Macmillan, £15.00 and £3.95).

Poetic zeal

Edmund Spenser: protestant poet
by Anthea Hume
Cambridge University Press, £18.50
ISBN 0 521 25807 3
Milton's Puritan Masque
by Maryann Cale McGuire
University of Georgia Press, \$20.00
ISBN 0 8203 0674 6

That both our greatest Renaissance poets appear to have been Puritans has caused some puzzlement, not a little disappointment, and occasional embarrassment to critics and commentators, who have shown a marked disinclination to believe that when either poet's imagination was engaged his religious convictions were also in play. Since Blake and Shelley found the revolutionary heart of *Paradise Lost* beating in Satan's breast, the argument that the epic's theological villain is its poetic hero has been frequently deployed. Critics have similarly confessed to feeling a good deal more companionable towards *Comus* and his Cavalier gusto than to the Lady and her chastity, from which it is not a large step to supposing Milton the poet felt so too.

In much the same way the biographical case for Spenser's Puritanism has little relevance to his poetry for those who discover an entirely healthy interest in the epic's theological villain in its poetic hero has been frequently deployed. Critics have similarly confessed to feeling a good deal more companionable towards *Comus* and his Cavalier gusto than to the Lady and her chastity, from which it is not a large step to supposing Milton the poet felt so too.

It is the contrary case which is argued in the books under review. Both contend that we wrong these poets if we take them at less than their Puritan word. Neither pursues its case to absurdly reductive lengths, and each is sensitive to the interplay of classical, humanist, neoplatonic, romantic and iconographical elements in the poetry, but it is nevertheless the poets' Puritan commitment which is championed as the inspiration and the shaping principle of their poetic designs (both formal and effective).

Of the two, Anthea Hume's is the more wide-ranging and radical. Her opening discussion of *The Shepherds' Calendar* argues "that Spenser has organized the dialogues in such a way as to ensure that the Puritan argument emerges as the imaginatively persuasive one". Her exemplary demonstration of this thesis combines close attention to textual details with pertinent reference to contemporary ecclesiastical controversy and sermons to conclude that, despite the interest attached to both sides in the dialogues, "the flawed in one speaker's argument are steadily exposed, while the other speaker builds up a consistent and self-justifying case". In place of the now-aligned and unaligned Spenser is set a Spenser committed to Puritanism.

Diggon. Dr Hume discerns the same consistently religious purpose in *The Faerie Queene*, arguing that it moves not from grace to nature but from grace to the works of faith, becoming, in fact, a pilgrim's progress. After Christian faith comes Christian life, "the pursuit of perfection". "growth in moral virtue". Like all the best criticism, this interpretation has the authority of simplicity. It has, furthermore, the persuasiveness of historical probability. Dr Hume's argument that there is no change in the poem's frame of reference after Book I restores to it a unity of conception and design demonstrably compatible with Puritan teaching. All Spenserians will henceforth have to take account of this crisply written and compelling study, and they will no longer find it easy to show Spenser the Puritan the door when they admit Spenser the poet.

In Maryann McGuire's view a similar commitment and dynamic leads Milton in *Comus* to reform and to re-form the Caroline masque. This has been, to a degree, acknowledged by most accounts of *Comus*, but Dr McGuire goes further in her contention that Milton's Puritanism is the controlling force throughout the masque. She begins by addressing the insufficiently pondered paradox that

Milton should have essayed a genre closely associated with the masque, the court and with the royal court-placencies of Charles II and Henrietta Maria. She resolves the paradox by noting that *Comus* sounds very much like a defender of Charles II's *Declaration of Sports*; Milton is, with modesty and audacity as he would later do, an epic in which to redefine his values, taking up the masque to say the very values the form came to be distinguished not only from Roman Catholic abstinence but also from the romantic neoplatonism of the Caroline version of courtly love. As his solution in St Paul's tried suggest, he comprehends the works of faith, for faith here — as everywhere in Milton — thrives by exercise. Hence, in place of the masque's usual ritualistic affirmation of harmony and stasis, Milton offers a dramatic pilgrim's progress, his characters journeying both physically and spiritually. Dr McGuire is the most convincing explanation we have of why Milton should ever have written *Comus*.

N. H. Keeble

Dr Keeble is lecturer in English at the University of Stirling.

Coming to terms

The Thistle Rises: an anthology of poetry and prose by Hugh MacDiarmid
edited by Alan Bold
Hamish Hamilton, £12.95
ISBN 0 241 11171 4

At eighty-five, Hugh MacDiarmid was content to borrow from Thomas Hardy to sum up his artistic position: "Literature is the written expression of revolt against all accepted things". Perhaps only Ezra Pound borrowed more. MacDiarmid's borrowings were often unconscious and mystifying: the poem "Perfect" turned out to be a typographical rearrangement of Glyn Jones's prose; and Hardy seems an astonishing choice of proxy for a mystical nationalist/communist.

Like Pound, again, MacDiarmid rarely achieved a balance between revolt and expression. He could be startlingly prosaic and in later years became addicted to diatribe and to long, intense quotations from obscure British philosophers. MacDiarmid's ideas rarely stand up to independent scrutiny. He was concerned in the main with the way they sounded, as in his notorious insistence that "Shirokoff's *Psychological Complex of the Venus*" was great poetry. The claim was not for the text (if it existed at all) but for the poetic resonance of the unpoetic words.

Perhaps ironically, it is the first, poetic part of *The Thistle Rises*, Alan Bold's new MacDiarmid anthology, which seems irrelevant. We now have the *Complete Poems*, an authoritative anthology edited by the poet's son, Michael Grieg, and Alexander Scott, an overlapping edition of *The Socialist Poems* by J. S. Law and Thorne Browne, and a useful Penguin selection of 18 poems of poetry in

The Thistle Rises, including some pieces excluded from the *Complete Poems*. These seven are scarcely worth reprinting in a general anthology and show MacDiarmid at his weakest and most unpoetically "occasional": a diatribe on the American missile boat at Holy Loch is entitled (quite probably) "The Unholy Loch" and ends "Nay, Hell itself would disagree if a Polar base there is NO PLACE".

The real value of *The Thistle Rises* is in the succeeding three hundred pages of prose: essays, MacDiarmid's collected short fiction, speeches and interviews. Understandably, none has just published an edition of his book, Bold included only one selection from the remarkable *Annals of the Senes*, MacDiarmid's first collection of prose. The selection from *Senes*, Grieg's collaboration with the Scene, his collaboration with the equally pseudonymous Lewis Grass Glabbie is a strange one, an unconvincing full closet drama. His essay then on Major Douglas, Pound's mentor and the theorist of social credit, is a more worthy reprinting.

However, there is a wealth of valuable material. Sensibly, Bold has edited down MacDiarmid's enormous and lengthy quotations, removing tampering with the prose. The leaner and far more readable.

We are slowly coming to terms with Hugh MacDiarmid. Alan Bold's contribution to our understanding has been enormous. As well as his valuable editions, he has written *Terrible Crystal*, a study of the poet and is working on a critical biography. Perhaps his most valuable contribution is still to come: an edition of the poet's late work. These are the help us through many of the complex and contentious MacDiarmid texts and armistices to his poetic eye.

Brian Morion

Brian Morion is lecturer in English at the University of Stirling.

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Polytechnics
Colleges of
Higher Education
Colleges with
Teacher Education
Colleges and
Institutes of Technology

Technical Colleges
Colleges of
Further Education
Colleges and
Departments of Art
Administration
Overseas
Adult Education
Librarians
General Vacancies
Industry and Commerce

Other classifications

Exhibitions
Awards
Conferences and Seminars
Courses

Personal
For Sale and Wanted
Holidays and
Accommodation

All box no. replies should be sent to THES at the above address

THE UNIVERSITY OF NEW ENGLAND

Chair Appointments

The University of New England invites applications for the following tenures:

ENGLISH
falling vacant on the retirement of Professor J. D. Hainworth. The Department offers courses in English language and in English, American and Australian literature.

PHYSIOLOGY
vacant following the retirement of Professor J.V. Evans. The Department offers courses in Physiology in the Faculties of Science and Rural Science and in Human Biocience in the Faculty of Arts.

ZOOLOGY
vacant following the retirement of Professor A.F. O'Neill. The Department offers a range of courses with emphasis on ecologically-oriented subjects.

Each of the three Departments teaches both internal and external students (the latter being required to attend residential schools). All Departments have active research programmes and supervise post-graduate student research.

In each case the appointee will become Head of Department for an initial period of five years. The professional salary is \$44,887 per annum. Academic salaries are at present under review.

Full particulars can be obtained from the Staff Officer, University of New England, Armidale, New South Wales, Australia 2351 (telephone 180 61 67 73 2100, with whom applications, which should include the names and addresses of three referees, close on 21 June 1984).

Informal enquiries may be directed to the Chairman of the Academic Board, Professor I. R. Falconer (telephone 180 61 67 73 2100).

19721

THE UNIVERSITY OF MANCHESTER

Lecturers in Computer Science

As a result of the IT Initiative, the department seeks applicants for three lectureships.

(1) The Formal Methods Group of Professor Cliff Jones wishes to appoint a lecturer who is familiar with specification and verification techniques. The department has an excellent engineering group and preference will be given to someone who would pursue research in applying formal methods in the hardware area.

(2) The dataflow research group, led by Drs. Gurd and Watson, is working on the design and implementation of unconventional computer systems. Research is currently in progress into both data-driven (dataflow) and demand-driven (reduction) architectures. Applications are especially sought from candidates with interests and experience in the application and implementation of declarative (functional and logic) programming languages.

(3) Applicants should have research experience and be able to teach at undergraduate and postgraduate level in microprocessor systems or networked workstations. Groups are currently involved in developing systems for text processing, speech synthesis and recognition and the use of microcomputers in medicine.

Initial salary range for all appointments £7,190-£14,125 p.a. (Superannuation). All posts are tenable from October 1st, 1984 or as soon as possible thereafter. Particulars and application forms (returnable by May 15th) from The Registrar, The University, Manchester M13 9PL. Quote ref. 102/84/THES.

UNIVERSITY OF LANCASTER

Appointment of Vice-Chancellor

The University is seeking a successor to Professor P. A. Reynolds, who will retire on 30 September, 1985.

Persons interested in being considered for the post or wishing to suggest anyone for consideration are invited to write, in confidence, to Sir Alesair Pilkington, MA, D.Tech, D.Eng, FRSE, Pro-Chancellor, c/o Mr. G. M. Cockburn, Secretary of the University, University of Lancaster, Bailrigg, Lancaster, LA1 4YW, not later than 31st May 1984. Further information may be obtained from the Secretary.

University of Aberdeen

Department of French

LECTURESHP

Applications are invited for a lectureship in French with French as a second language. The post is full-time and involves teaching and supervision of students. The salary is £7,190-£14,125 p.a. (Superannuation). All posts are tenable from October 1st, 1984 or as soon as possible thereafter. Particulars and application forms (returnable by May 15th) from The Registrar, The University, Manchester M13 9PL. Quote ref. 102/84/THES.

Heriot-Watt University

Department of Computer Science

TWO LECTURERS

Applications are invited as soon as possible for the above posts, one of which is available following the recent UGC (Higher Education) Review.

The Department offers a joint degree in Computer Science and Information Technology. The salary is £7,190-£14,125 p.a. (Superannuation). All posts are tenable from October 1st, 1984 or as soon as possible thereafter. Particulars and application forms (returnable by May 15th) from The Registrar, The University, Manchester M13 9PL. Quote ref. 102/84/THES.

University of Edinburgh

Department of Mathematics

CHAIR OF SOCIAL WORK

Applications are invited for the Chair of Social Work, which will be vacant on the death of Professor P. H. Hogg. The salary is £7,190-£14,125 p.a. (Superannuation). All posts are tenable from October 1st, 1984 or as soon as possible thereafter. Particulars and application forms (returnable by May 15th) from The Registrar, The University, Manchester M13 9PL. Quote ref. 102/84/THES.

University of Hong Kong

Department of Mathematics

CHAIR OF SOCIAL WORK

Applications are invited for the Chair of Social Work, which will be vacant on the death of Professor P. H. Hogg. The salary is £7,190-£14,125 p.a. (Superannuation). All posts are tenable from October 1st, 1984 or as soon as possible thereafter. Particulars and application forms (returnable by May 15th) from The Registrar, The University, Manchester M13 9PL. Quote ref. 102/84/THES.

**The University of
Auckland**

PSYCHOLOGY
Applicants must have a bachelors degree and be qualified in a recognized branch of Psychology. It is expected that they will have teaching experience at tertiary level and a substantial research record. The Department of Psychology has a history of fostering the subject in an experimental and basic fashion while no area of specialization

Commenting salary was established within the range for professors, at present \$25,411.937-\$52,482.000 plus a cost-of-living allowance of \$8 a week. Applications of Appointment Method of Application available from the Association.

University of

Sydney
LECTURESHIP IN
DEPARTMENT OF
HISTORY

Applications are invited for a
lectureship in late modern
European history. Preference
will be given to applicants
with expertise in nineteenth
and twentieth century
European history. The successful applicant
will be expected to teach and supervise
graduate students in the field.

Appointments to a Lectureship are usually probationary for three years and the University reserves the right not to proceed with the appointment for financial or other reasons.

University of Durham
St John's College

Cranmer Hall
Required for October
**PART-TIME
PERSONAL TUTOR**
For the University H
his Christian founde
accommodation in C
flat suitable for either
married couple, or single
or woman) throughout
year and full board d
term-time, offered in r

Further particulars to the Principal, to whom application should be made with full curriculum vitae, names and addresses of references, and a list of persons to whom discipline was applied.

**The New University
Ulster
Institute of Continuing
Education
ADULT EDUCATION
AND DEVELOPMENT
IN GREAT BRITAIN**

AND IRELAND
Residential Conference
London, 1984
Terry Lacey, General
Secretary of Co-operation
Development, Prof.
Malcolm Brown, Director
Adult and Continuing Education
at the University
Glasgow.

For further information
contact: The New Unity

**University College
London**
Faculty of Laws
Applications are invited
TWO LECTURESHIPS

in the Faculty of Laws
October 1984.

Salary scale	£7,141.25 + £1,186.00
Allowance. Initial	£1,000.00
according to age, qualifications and experience.	

Applications with particulars of education, experience, appointments held, publications (if any) and the names of two referees by 15 May 1985 to the Departmental Secretary, Faculty of Laws, University of London.

College London.
Gardeners, L
VCII OEG from whom
naticulars may
be obtained.

Polytechnics

HUDDESFIELD POLYTECHNIC
Department of Computer Studies & Mathematics
LI/SL (2 posts) Ref: ACA501
Under the Information Technology Initiative this department is increasing its intake on the BA (Hons) BA Computing in Business courses. The above new posts are available from 1 September 1984 for suitably qualified and experienced candidates. Applicants should possess a good honours degree in an appropriate discipline and have the necessary academic and/or industrial experience to make an effective contribution to the work of the department. Experience of research or consultancy together with any of the following areas would be an advantage: Structures Design Methodologies, Networking, Knowledge Based Systems.

Department of Economic & Marketing Studies
LI/SL (2 posts) Ref: ACA503
Applications are invited from suitably qualified candidates to join the Department. The successful candidates will be required to teach business studies and related subjects (eg marketing, economics, business policy) to a range of degree and non-degree courses and be able to support their teaching by appropriate research. Research experience or a willingness to undertake research will be a strong recommendation.

Department of Accountancy & Finance
LI/SL (2 posts) Ref: ACA504
Applications are invited for the post of lecturer to join a progressive department offering teaching and research opportunities at Honours degree, advanced professional and first or higher degree levels. A professional accounting qualification and a first or higher degree are desirable. Applications from candidates who are able to offer Advanced Financial Accounting as a specialism will be particularly welcome. Grade of appointment will be dependent on qualifications and experience. Staff are expected to undertake activities, including research, in addition to teaching duties.

Department of Geography & Geology
LI/SL in Physical Geography Ref: ACA507

Two year fixed term appointment.
Applications are invited from well qualified graduates with research experience in hydrology/geomorphology.
Salary: LI - £17,215-£17,688
SL - £10,693-£12,652 (bar) - £13,443
Further details and application forms (please send SAE) from Personnel Department, The Polytechnic, Queensgate, Huddersfield, HD1 3DH, and should be returned to this office not later than 18 May 1984. (14723)

DEPARTMENT OF COMPUTING AND MICROPROCESSOR APPLICATIONS

LECTURING OPPORTUNITIES IN COMPUTING

A number of vacancies exist in a growing department at Lecturer II/Senior Lecturer and Principal Lecturer level. Candidates should ideally have experience at honours degree level/Industrial experience for the senior posts. New/post graduates are particularly welcome to apply and should be able to offer expertise in one or more of the following fields: Operating Systems, Computer Architecture, Artificial Intelligence, Databases or Imaging and Graphics. Salary scales: Principal Lecturer: £12,518-£15,744 per annum. Lecturer II/Senior Lecturer: £7,215-£13,443 per annum.

Further details and application form from Staff Officer, Trent Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date 23 May 1984. (14720)

TRENT POLYTECHNIC NOTTINGHAM

Preston Polytechnic

LECTURER II/SENIOR LECTURER IN EDUCATIONAL COMPUTING

The Polytechnic has offered Educational Computing courses for several years and as a result of recent developments in this area now wish to appoint to the above post a person to act as Educational Computing Co-ordinator.

Duties of the post will include responsibility for the Polytechnic's commitment to the development of educational computing programmes in the Polytechnic, liaising with the various departments and acting as a central point of contact for all matters relating to educational computing.

Applicants should have a first degree in Computing Science or a related discipline and a minimum of three years' experience in the field of educational computing. The successful applicant will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary Scales (award pending): Lecturer II £12,518-£15,744 per annum. Senior Lecturer £13,443-£16,669 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14721)

Teesside Polytechnic
An Equal Opportunity Employer

PRINCIPAL LECTURER IN CIVIL ENGINEERING (STRUCTURES)

Applications are invited from suitably qualified candidates to join the Department of Civil Engineering and Structural Engineering. The successful candidate will be responsible for the teaching and supervision of students in the field of Civil Engineering (Structures) at Honours and Postgraduate levels.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14722)

1. LI/SL MECHANICAL ENGINEERING

Salary: £7,215-£13,443 (Level of appointment and starting salary dependent upon qualifications and experience).

Pay award pending.
A lecturer is needed with speciality in some aspect of Applied Mechanics and/or Engineering Design, with particular emphasis on modern computer based techniques. Links with Manufacturing Engineering would be an advantage, as would recent industrial experience.

2. LI/SL IN MODERN LANGUAGES

Salary: £7,215-£11,588 (Normally with further advancement to £13,443 (SL)).

Pay award pending.
Applicants should be able to offer German and French. A strong interest in applied language studies is essential. Further details and application form, returnable by Friday 10th May 1984, are available from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA. Tel: 0782 284639. (14644)

Plymouth Polytechnic

Lothian Regional Council
NAPIER COLLEGE OF COMMERCE AND TECHNOLOGY

SENIOR LECTURER A IN BUILDING
Salary on Scale: £12,228-£15,572 (Bar) - £15,411
required to make a major contribution to the work of the Department of Building and Construction Technology, Building Science and Building Management. Applicants should have relevant degree or professional qualifications and teaching experience.

LECTURER A IN APPLIED PHYSICS
Salary on Scale: £8,313-£12,228 (Bar) - £13,128
required in the Department of Physics to teach on higher diploma and CNAA degree courses. Preference will be given to applicants who have had industrial experience, particularly of micro-computer based instrumentation and applications. It will be expected that the successful candidate will join one of the research groups in the Department.

LECTURER A IN BUSINESS STUDIES
Salary on Scale: £8,313-£12,228 (Bar) - £13,128
required in the Department of Business Studies. Applicants should possess a good Honours Degree in one of the main areas of Business Studies and preferably have postgraduate research experience. It is probable that a first degree in Business Studies, Economics or the Behavioural Sciences would be the most appropriate for the vacant post.

Application forms and further particulars from: The Administrative Officer (Personnel), Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 5DT. Tel: 031-447 7070. (14726)

The Polytechnic of North London

PRINCIPAL LECTURER IN SOCIAL WORK

This senior post is required to continue the 4-year applied social work degree programme. The successful candidate will be responsible for the teaching and supervision of students in the field of Social Work at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

SENIOR LECTURER/LECTURER GRADE II IN COMPUTING

Required to complement the skills of our existing lecturers in the development of undergraduate and postgraduate work, research and industrial consultancy. The successful candidate will be responsible for the teaching and supervision of students in the field of Computing at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14723)

The Polytechnic of Central London

ACADEMIC REGISTRAR'S OFFICE

FACULTY REGISTRAR: MANAGEMENT STUDIES
Applications are invited for the post of Faculty Registrar for Management Studies. The successful candidate will be responsible for the teaching and supervision of students in the field of Management Studies at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

SENIOR LECTURER/LECTURER GRADE II IN COMPUTING

Required to complement the skills of our existing lecturers in the development of undergraduate and postgraduate work, research and industrial consultancy. The successful candidate will be responsible for the teaching and supervision of students in the field of Computing at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14724)

Queen Margaret College
EDINBURGH

HEAD OF DEPARTMENT OF PHYSIOTHERAPY (Re-advertisement)

Applications are invited from suitably qualified graduates Physiotherapists for the above post which becomes vacant on 1 September 1984 upon the retirement of the present incumbent. The person appointed will be expected to lead a team of Physiotherapists in the development and implementation of a degree course in Physiotherapy and to develop research and professional advancement programmes within the Department.

Salary: £18,841 per annum.
Application forms and further particulars may be obtained from the College Secretary, Queen Margaret College, Clarendon Terrace, Edinburgh EH12 5TS. Telephone 031-338 8111 Ext. 254. Closing date for applications: 31st May 1984. (14645)

RGIT

ROBERT GORDON'S INSTITUTE OF TECHNOLOGY

SCHOOL OF NUTRITIONAL SCIENCE
LECTURER IN FOOD SCIENCE/CATERING TECHNOLOGY

Good Honours Graduate in Food Science or Food Technology. Teaching and/or industry experience advantageous. Research range (under review): £9,313-£13,128 per annum. Assistance with removal expenses. Details from Secretary, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1FR (0224 633811). (14646)

Middlesex Polytechnic

Faculty of Business Studies and Management
Professor/Head of School of Accounting and Finance

GRADE VI HEAD OF DEPARTMENT: £17,277-£18,972pa inc.
Applications are invited for the post of Head of School of Accounting and Finance, from candidates with:

- teaching experience in higher education
- a record of achievement in research and consultancy
- appropriate experience of academic administration
- preferably some experience in industry or commerce

Demonstrable potential to lead a team of accounting staff expected, together with the ability to make an effective contribution to academic developments through teaching, research and consultancy.

Write quoting Ref A428B for further details and an application form, posting first-class to: Personnel Office, Middlesex Polytechnic, 114 Chase Side, London N14 6PN. Closing date May 14. (14647)

DUNDEE COLLEGE OF TECHNOLOGY

Department of Molecular & Life Sciences

SENIOR LECTURESHIP IN CHEMISTRY

The person appointed will be required to undertake a leadership role with particular reference to the further development of the B.Sc. Chemistry & Management course offered by the department, to teach up to honours degree level and to supervise postgraduate research. Applicants should possess a good honours degree together with a higher degree and research experience. Managerial experience in a chemical industry would be of considerable advantage. Salary scale (currently under review): £12,228-£15,572 (bar) - £15,411, with initial placing dependent upon approved previous experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms obtainable from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee, DD1 1HG with whom applications should be lodged by 18 May 1984. (14648)

DUNDEE COLLEGE OF TECHNOLOGY

Department of Business Studies

LECTURESHIP IN MARKETING

The person appointed will be required to teach marketing in courses up to honours degree level. Applicants must have an honours degree in an appropriate discipline and have teaching, research and/or industrial experience. Salary scale (currently under review): £8,313-£12,228 (bar) - £13,128 with initial placing dependent upon approved previous experience. Financial assistance towards the cost of removal expenses may be payable. Further particulars and application form obtainable from: The Personnel Officer, Dundee College of Technology, Bell Street, Dundee DD1 1HG. To whom completed applications should be returned by 18th May 1984. (14649)

Polytechnics continued

Middlesex Polytechnic
London

LECTURER IN GERMAN

LI/SL: £7,860-£14,088 p.a. inc. PL: £13,164-£16,389 p.a. inc.
An opportunity to join the Polytechnic's School of Modern Languages in September 1984 to teach German from the development and implementation of a degree course in German to the Diploma of Higher Education to degree programmes within the Department.

Salary: £18,841 per annum.
Application forms and further particulars may be obtained from the College Secretary, Queen Margaret College, Clarendon Terrace, Edinburgh EH12 5TS. Telephone 031-338 8111 Ext. 254. Closing date for applications: 31st May 1984. (14645)

Colleges of Further Education

Middlesex Polytechnic
London

SCHOOL OF LAW

PART-TIME LECTURERS IN LAW

Applications are invited from suitably qualified graduates to join the School of Law. The successful candidate will be responsible for the teaching and supervision of students in the field of Law at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14725)

Inner London Education Authority

VERY HILL COLLEGE
Bexley Road, Eltham, SE9 2PQ.

LECTURER II IN MATHEMATICS

Required from 1st September 1984, a well qualified graduate with a minimum of three years' experience in the teaching of Mathematics at Honours and Postgraduate levels. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14726)

Blackwood Hodge Management Centre

SIR WILLIAM SHAPLAND FELLOWSHIP

A business orientated graduate is required to join a small active team to develop a range of short management courses and services for industry and business in a high technology residential Management Centre attached to Ness College.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14727)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14728)

University of East Anglia

SCHOOL OF EDUCATION

RESEARCH FELLOW (MATHEMATICS EDUCATION)

Applications are invited for this Research Fellowship in Mathematics Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14729)

University of Newcastle upon Tyne
HASWELL ELIAS MUSIC FELLOWSHIP

Applications are invited from graduates or the holders of equivalent qualifications who have shown themselves to be of high calibre in musical study and research in music. The Fellowship is available in the Department of Music in the Faculty of Arts for two years from 1 October 1984. Stipend: £18,000 in the first year and £17,630 in the second year.

Further particulars and application forms (which must be returned by 1 June 1984) may be obtained from the University of Newcastle upon Tyne NE1 7RU.

Colleges of Further Education

Applying for a job in Gwent?

The National Association of Teachers in Further and Higher Education is in dispute with Gwent County Council over conditions of service.

Anyone considering applying for a lecturing job in Gwent is asked to contact: Jim Munnelly or Paula Lanning, NatHE, Mableton House, Mableton Place, London WC1H 9BH. Tel no: 01-387 6806.

Inner London Education Authority

VERY HILL COLLEGE
Bexley Road, Eltham, SE9 2PQ.

LECTURER II IN MATHEMATICS

Required from 1st September 1984, a well qualified graduate with a minimum of three years' experience in the teaching of Mathematics at Honours and Postgraduate levels. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14730)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14731)

University of East Anglia

SCHOOL OF EDUCATION

RESEARCH FELLOW (MATHEMATICS EDUCATION)

Applications are invited for this Research Fellowship in Mathematics Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14732)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14733)

University of East Anglia

SCHOOL OF EDUCATION

RESEARCH FELLOW (MATHEMATICS EDUCATION)

Applications are invited for this Research Fellowship in Mathematics Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

HEREFORD AND WORCESTER COUNTY COUNCIL
WORCESTER COLLEGE OF HIGHER EDUCATION

THREE TEMPORARY LECTURESHIPS (LECTURER II)

In the School of Education and Teaching Studies 1984-85

Applications are invited for three temporary lectureships (Lecturer II) 1st September 1984 to 31st August 1985. Applicants should be prepared to contribute to Education and Professional courses in one or more of the following areas:

Primary Professional Studies
Language Development of Young Children
Teaching Studies

General Psychology
From among the applicants, one person will be sought who is able to contribute to BA (Honours) Combined Studies teaching in Psychology.

Applications from serving teachers wishing to be seconded from their present employment to gain experience in a diversified College of Higher Education offering Masters, Bachelors, Diploma and Certificate courses will be particularly welcome. Application forms and further particulars are obtainable from the Principal, Worcester College of Higher Education, Harwick Grove, Worcester WR2 8AJ. 0800 425850, to whom completed forms should be sent by return of post. (14734)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14735)

University of East Anglia

SCHOOL OF EDUCATION

RESEARCH FELLOW (MATHEMATICS EDUCATION)

Applications are invited for this Research Fellowship in Mathematics Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14736)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14737)

University of East Anglia

SCHOOL OF EDUCATION

RESEARCH FELLOW (MATHEMATICS EDUCATION)

Applications are invited for this Research Fellowship in Mathematics Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Mathematics Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14738)

Colleges of Higher Education

Christ Church College
Higher Education Canterbury

LECTURER IN PRIMARY EDUCATION

Applications are invited from suitably qualified graduates to join the School of Education. The successful candidate will be responsible for the teaching and supervision of students in the field of Education at Honours and Postgraduate levels. The successful candidate will be required to take a leading part in the development of undergraduate and postgraduate work, research and industrial consultancy.

Salary: £12,518-£15,744 per annum. Further details and application forms from: The Polytechnic, Burton Street, Nottingham, NG1 4BU. Closing date: 18th May 1984. (14739)

Research and Studentships

Kingston Polytechnic RESEARCH ASSISTANTSHIPS

Faculty of Arts and
Languages

FRENCH CINEMA

(Ref. AL)

Candidates should have a good knowledge of French or equivalent. The research assistant will work on the interrelationship of French cinema, society and culture from the 1930s to the present day. It is therefore desirable that he/she should have studied French cinema as part of their degree course. Closing date 14th May.

FLUID MECHANICS

(Ref. ME)

To work on an on-going research project investigating pipe contraction flow fields. The research assistant will be involved in the design, construction, and operation of a test rig. The work is well established and is supported by industry and academic bodies. Candidates should have a good knowledge of fluid mechanics and have proven practical ability. Closing date 14th May.

The appointments are for one year and are renewable. Salaries will be in the range £2,500-£3,000 p.a. inclusive. Details and application forms, quoting the reference, can be obtained from Academic Registrar, Kingston Polytechnic, Kingston upon Thames KT1 1AA. Tel: 01-845 1500 Ext. 511.

University of London Wye College

SERC CASE STUDENTS

Applications are invited for three postgraduate studentships commencing in October 1984.

The rapid genetic analysis of DNA using restriction endonucleases and electrophoresis. The rapid genetic analysis of DNA using restriction endonucleases and electrophoresis. The rapid genetic analysis of DNA using restriction endonucleases and electrophoresis.

Further information and application forms can be obtained from the Registrar, Wye College, Ashford, Kent TN25 5AH.

Closing date for applications 31st May 1984. HT

University of St Andrews

POSTDOCTORAL RESEARCH ASSISTANT

Applications are invited for the above three year post-doctoral research assistant commencing 1st October 1984 at an initial salary in the range £7,100 to £7,650 per annum, plus travel.

The post is funded by an SERC Research Grant and will involve the investigation of the radio frequency heating of materials. The research assistant will be involved in the design, construction, and operation of a test rig. The work is well established and is supported by industry and academic bodies. Candidates should have a good knowledge of radio frequency heating and have proven practical ability. Closing date 14th May.

Further information and application forms can be obtained from the Registrar, University of St Andrews, St Andrews, Fife KY16 9AJ. Tel: 01793 546111.

Closing date for applications 31st May 1984. HT

The University of Manchester

RESEARCH ASSISTANT IN SOCIOLOGY/ ANTHROPOLOGY

Applications are invited for the above three year post-doctoral research assistant commencing 1st October 1984 at an initial salary in the range £7,100 to £7,650 per annum, plus travel.

The research assistant will be involved in the design, construction, and operation of a test rig. The work is well established and is supported by industry and academic bodies. Candidates should have a good knowledge of sociology/anthropology and have proven practical ability. Closing date 14th May.

Further information and application forms can be obtained from the Registrar, University of Manchester, Manchester, M13 9PL. Tel: 0161 275 3444.

Closing date for applications 31st May 1984. HT

University of Manchester

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Administration

The Business & Technician Education Council (BTEC) advances the quality and availability of work-related education for those in, or preparing for, employment in commerce and industry. At present there are approximately 400,000 students registered with BTEC in over 600 colleges and other centres, including schools. As part of a restructuring of the Council's senior management team, the following key posts are now being established:

Chief Officer (Standards and Review) £24,600 p.a.

This Chief Officer, directly accountable to the Chief Executive, will be responsible for Standards and Review directing and developing the monitoring and review of courses and units validated and approved by BTEC so that the BTEC courses and qualifications are related to work and are of the highest quality. It is expected that the person appointed will have held senior positions in further/higher education and/or in industry or commerce and will have a proven record of interest and achievement in matters of quality and standards in education. Applicants should ideally be aged between 40 and 55.

Assistant Chief Officers (Educational Operations) £21,500 p.a.

These positions are being created in order to co-ordinate the management of BTEC educational operations, under the direction of the Chief Officer (Educational Operations), in respect of a group of Boards, and to maintain operating procedures for the approval of courses, the validation of courses, and the assessment of students in accordance with the Council's policies. The people appointed will have a record of successful innovation and management responsibility in education, industry or commerce, and have an interest in vocational education which extends beyond their own direct experience. The preferred age range is 35 to 55.

These posts are available from 1 September 1984, and will be based in London. Further details and application forms (which must be returned by 18 May 1984) are available from the Personnel Officer, Business & Technician Education Council, Central House, Upper Woburn Place, London WC1H 0HH. Tel: 01-888 3328.



Assistant Education Officer (Higher and Further Education) £12,738-£13,726

This fourth tier post carries responsibility for higher and further education including awards to students. Applicants should have a broad experience in at least one of the field.

Further information and application form (see page 1) can be obtained from the Chief Education Officer (P3) County Hall, Exeter, EX2 4QG. Returnable by 18 May 1984.



COUNCIL FOR NATIONAL ACADEMIC AWARDS ASSISTANT REGISTRAR

Applications are invited for the post of Assistant Registrar with initial responsibility for Technology.

In addition to his or her work in the field of Technology, the Assistant Registrar will be involved in the development of the Council's academic policy generally.

Candidates for the post should be well qualified academically and/or professionally and should have appropriate teaching and/or academic administrative experience.

The salary scale is £11,570-£18,281 p.a. including London Weighting. Salary on appointment will not exceed £14,825 p.a.

Further particulars may be obtained from Assistant Secretary (Personnel) CNA, 34/35 Gray's Inn Road, London WC1X 8BP. Tel: 01-278 4411 to whom applications giving details of qualifications and experience and the names of two referees should be submitted by 25 May 1984.

Holidays and Accommodation

We offer a range of holiday accommodation for students. The accommodation is well equipped and comfortable. It is situated in a quiet area and is close to the city centre. The accommodation is available for students on a long-term basis. The accommodation is available for students on a long-term basis.

Further information and application forms can be obtained from the Registrar, University of Manchester, Manchester, M13 9PL. Tel: 0161 275 3444.

Closing date for applications 31st May 1984. HT

Colleges of Art

CUMBRIA COUNTY COUNCIL Cumbria College of Art and Design

DIRECTOR OF STUDIES — Resources

DIRECTOR OF STUDIES — Management

Head of Department Grade IV Scale

Applications are invited for two new senior posts from 1 September 1984 in this developing College.

The successful applicants will be required to assist the Vice Principal in the day to day running of the College and in the preparation and implementation of developments.

The Director of Studies — Resources should have considerable experience of the field of audio visual media and/or computerised technology and their application to design and the arts. The Director of Studies — Management should have considerable experience of the field of business marketing and management techniques and their application to design and the arts.

Applications will be considered from candidates with a commercial, industrial or academic background.

Further details and application forms (s.a.s. please) available from the Registrar at the College, Brampton Road, Carlisle, Cumbria, CA3 8AY, tel. (0228) 26333, to whom completed forms should be returned by 21 May 1984.

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Inner London Education Authority Central School of Art and Design

Southampton Row, London WC1B 4AP

Telephone: 01 406 1826

Liberal Studies Department

Required from September 1984.

LECTURER II IN GRAPHIC DESIGN

£7,315-£11,558 p.a. (plus London weighting). The post is for a full-time lecturer in the field of Graphic Design. The successful candidate will be required to teach and supervise students in the field of Graphic Design. The successful candidate will be required to teach and supervise students in the field of Graphic Design.

Further details and application forms (s.a.s. please) available from the Registrar at the College, Brampton Road, Carlisle, Cumbria, CA3 8AY, tel. (0228) 26333, to whom completed forms should be returned by 21 May 1984.

1463

Overseas

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Overseas continued



McGILL UNIVERSITY Architecture/Art History

Search Re-Opened

McGill University invites applications for appointment to the newly established Sadye Rosner Bronfman Chair in Architectural History. The appointment is to be held jointly in the Department of Art History in the Faculty of Arts and in the School of Architecture in the Faculty of Engineering. The successful candidate will hold a Ph.D. or have equivalent qualifications, will be a scholar with major publications, and have established an international reputation as an architectural historian and critic. For this chair, the University is seeking an individual who has broad experience in teaching and who will attract graduate students and direct their research, working closely with the Master's and Ph.D. programs and utilizing the unique resources of the Canadian Centre for Architecture. Fluency in French as well as English will be an asset. This tenurable position is at the rank of full professor and will be tenable from June 1 1985. Salary is negotiable depending on academic qualifications and experience. Interested candidates should send a detailed resume and the names of three referees before July 31, 1984 to:

Dr. S. O. Freedman, Vice-Principal (Academic)
McGill University,
P. Cyrill James Building, Room 504,
845 Sherbrooke Street West,
Montreal, Quebec
CANADA H3A 2T6

(14638)

PRINCIPAL

MANANGA AGRICULTURAL MANAGEMENT CENTRE
Arising from its wide experience in establishing, financing and managing agricultural schemes in Third World countries, the Commonwealth Development Corporation (CDC) established Mananga in 1972 to provide management training in agriculture, rather than teaching agriculture. The Centre occupies an attractive campus 300m above sea level in Swaziland. Since its opening more than 1200 students have undertaken programmes at the Centre, from 42 countries.

Applications are invited from suitably qualified candidates for the position of Principal. Candidates are likely to be aged 43-53 with an authoritative knowledge of the economics of agricultural development and business management training. They should be experienced administrators with, desirably, an ability to promote the activities of Mananga to Governments, Aid Agencies and Commercial organisations operating in this field of activity. Expatiation conditions of employment will be most attractive. The post is responsible and offers such fringe benefits as educational allowances for dependent children, furnished housing at a low rental and generous home leave arrangements. Applicants should write to Mr. Christopher Garfit, who is advising CDC on the appointment, enclosing a detailed CV by not later than 30th May at:

D. BRYAN ANDREWS ASSOCIATES
St. Martin's House, 29 Ludgate Hill, London EC4M 7BQ.
(Tel: 01-248 8033. Telex: 261000)

RHODES UNIVERSITY GRAHAMSTOWN — SOUTH AFRICA

Institute of Social and Economic Research

Research Fellowship

The University Fellowship, tenable at the Institute, is offered for the calendar year 1985 or for the period July 1985 to June 1986.

The Fellow will be required to engage in full-time research in any field within the broad range of the Social Sciences, though preference will be given to a mature scholar from outside South Africa whose research relates to Southern Africa (and in particular to Transkei, Ciskei and the Eastern Cape).

In fields such as African Languages, Anthropology, Development Studies, Economics, Ethnomusicology, Folklore, Education, History, Human or Economic Geography, Politics, Psychology or Sociology. Consideration will not normally be given to candidates engaged in studies for a higher degree.

The emoluments of the Fellowship at present are at the rate of £17,800 per annum. The Fellowship may be awarded on a pro rata basis for shorter periods of time if necessary.

Full personal and career details should be submitted to the Director, Institute of Social and Economic Research, Rhodes University, Grahamstown, 6140, Republic of South Africa.

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Scholarships

The Australian National University SCHOLARSHIPS FOR Ph.D. DEGREE COURSES

Persons who hold or expect to hold a bachelor's degree with at least upper second class honours, or equivalent from a recognised university, are invited to apply for Australian National University Ph.D. Scholarships, tenable over a wide range of subjects in the Humanities and the Physical, Medical, Chemical, Biological, Earth and Social Sciences. Scholarships are available in any of the departments or units of the Institute of Advanced Studies, which consists of Research Schools of Biological Sciences, Biological Sciences, Social Sciences, Earth Sciences, and the John Curtin School of Medical Research of the Faculties of Arts, Science, Medicine, Law and Commerce, and the Australian Citizenship Centre.

Scholarship benefits. The basic stipend payable is A\$5,531 per annum (tax free) with additional allowances for research and living expenses. The allowance for research is available to holders of research scholarships. The allowance for living expenses is available to holders of research and teaching scholarships. The allowance for research is available to holders of research scholarships. The allowance for living expenses is available to holders of research and teaching scholarships.

Further information and application forms (s.a.s. please) available from the Registrar at the College, Brampton Road, Carlisle, Cumbria, CA3 8AY, tel. (0228) 26333, to whom completed forms should be returned by 21 May 1984.

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Posts Overseas

Kuwait

Department of English,
Faculty of Arts
Kuwait University

Post 1: 7 English Language Instructors

Post 2: 3 Lecturers or Assistant Professors or Professors of Applied Linguistics

Post 3: 1 Lecturer or Assistant Professor or Professor of Classics

Post 4: 1 Lecturer or Assistant Professor or Professor of Drama (Shakespeare)

Post 5: 1 Lecturer or Assistant Professor or Professor of Arabic

Post 6: 1 Lecturer or Assistant Professor or Professor of Persian

Post 7: 1 Lecturer or Assistant Professor or Professor of Urdu

Post 8: 1 Lecturer or Assistant Professor or Professor of Hindi

Post 9: 1 Lecturer or Assistant Professor or Professor of Bengali

Post 10: 1 Lecturer or Assistant Professor or Professor of Sanskrit

Post 11: 1 Lecturer or Assistant Professor or Professor of Pali

Post 12: 1 Lecturer or Assistant Professor or Professor of Tibetan

Post 13: 1 Lecturer or Assistant Professor or Professor of Nepali

Post 14: 1 Lecturer or Assistant Professor or Professor of Sinhalese

Post 15: 1 Lecturer or Assistant Professor or Professor of Malay

Post 16: 1 Lecturer or Assistant Professor or Professor of Indonesian

Post 17: 1 Lecturer or Assistant Professor or Professor of Thai

Post 18: 1 Lecturer or Assistant Professor or Professor of Vietnamese

Post 19: 1 Lecturer or Assistant Professor or Professor of Burmese

Post 20: 1 Lecturer or Assistant Professor or Professor of Cambodian

Post 21: 1 Lecturer or Assistant Professor or Professor of Lao

Post 22: 1 Lecturer or Assistant Professor or Professor of Khmer

Post 23: 1 Lecturer or Assistant Professor or Professor of Mon

Post 24: 1 Lecturer or Assistant Professor or Professor of Shan

Post 25: 1 Lecturer or Assistant Professor or Professor of Karen

Post 26: 1 Lecturer or Assistant Professor or Professor of Kachin

Post 27: 1 Lecturer or Assistant Professor or Professor of Chin

Post 28: 1 Lecturer or Assistant Professor or Professor of Miao

Post 29: 1 Lecturer or Assistant Professor or Professor of Yunnan

Post 30: 1 Lecturer or Assistant Professor or Professor of Guizhou

Post 31: 1 Lecturer or Assistant Professor or Professor of Sichuan</